NOT TO CIRCULATE

NOT TO CIRCULATE



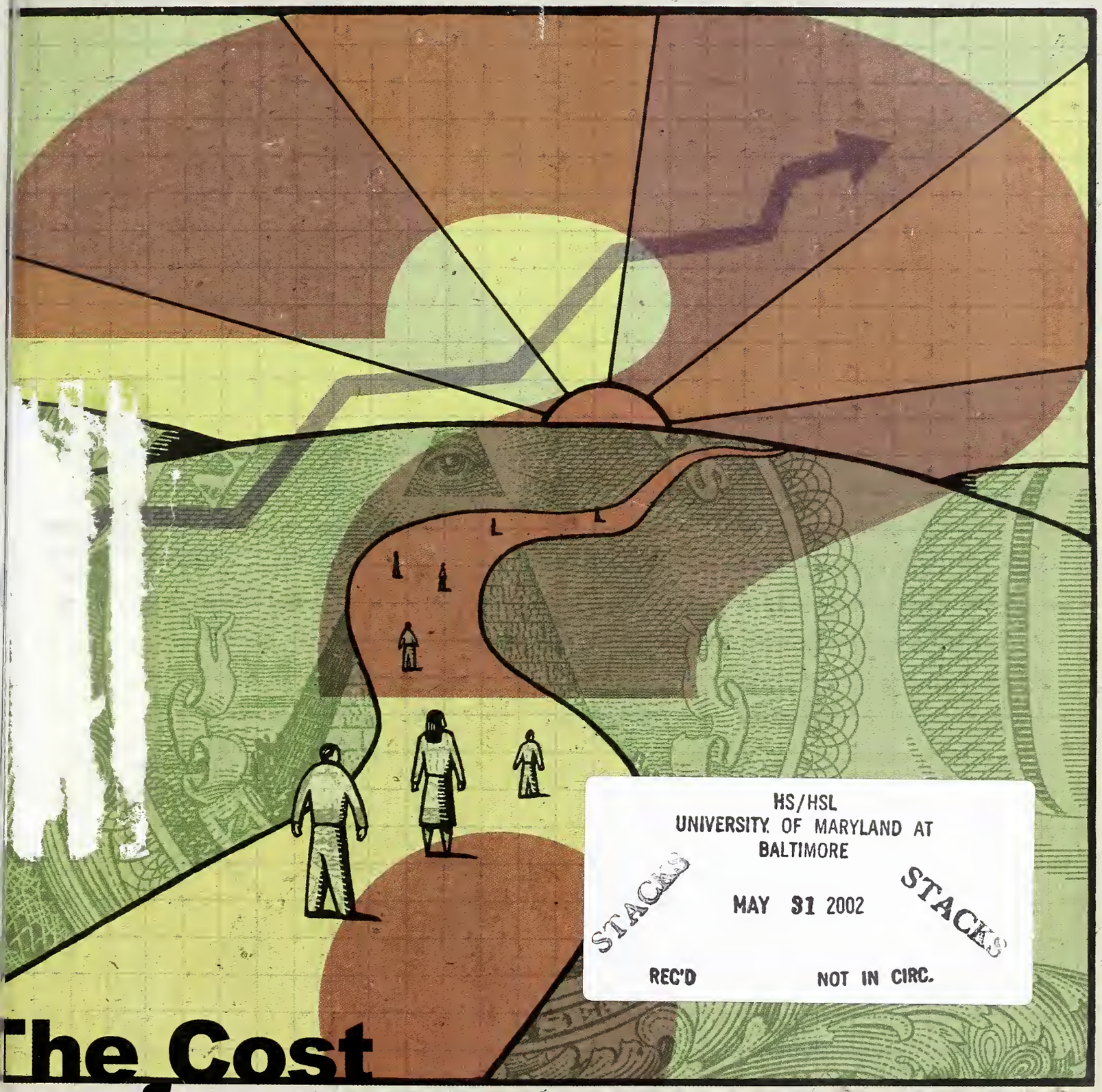
Digitized by the Internet Archive
in 2016

https://archive.org/details/minnesotamedicin8311minn

RISING PREMIUMS • GROWING NUMBERS OF UNINSURED • COMMUNITY SOLUTIONS

# Minnesota Medicine

JOURNAL OF CLINICAL AND HEALTH AFFAIRS

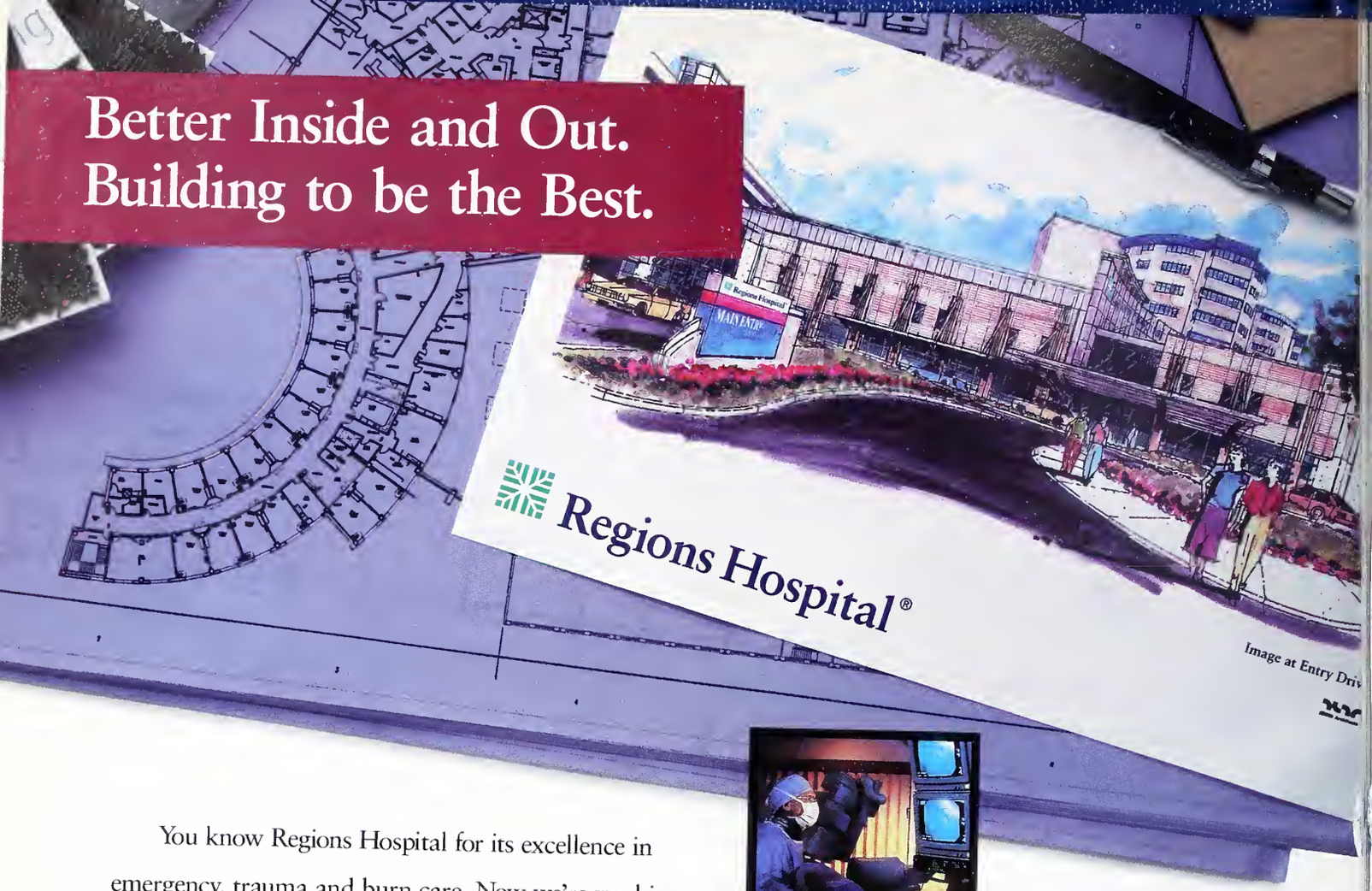


HS/HSL
UNIVERSITY OF MARYLAND AT
BALTIMORE
STACKS
MAY 31 2002
STACKS
REC'D
NOT IN CIRC.

## The Cost of Coverage

JANUARY 2000

# Better Inside and Out. Building to be the Best.




You know Regions Hospital for its excellence in emergency, trauma and burn care. Now we're working on a major expansion and renovation designed to expand our expertise in key programs and specialty services—including state-of-the-art facilities and premier programs for heart care, women's services, cancer, surgery, critical care, and gastroenterology. All with an attention to detail that assures a healing environment for physicians, patients and families.

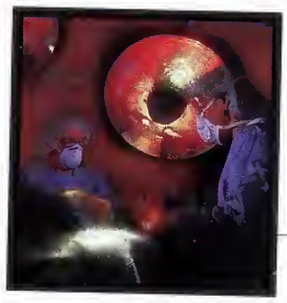
It's all part of our commitment to provide excellent care and convenience to enhance your patients' healing. That's what makes Regions Hospital a premier, full service, private hospital—the hospital of choice for providing outstanding medical care.

For physician consultation, information and referral services, call Regions Hospital Direct, 24-hour physician-to-physician hotline at 1-888-588-9855.






**State-of-the-art Facilities for Heart, Women's, Cancer, Critical Care and Gastroenterology Services**



**Expanded and Renovated Surgical Suites**



**More Private Rooms and Waiting Areas**

Regions Hospital

640 Jackson Street, St. Paul, MN

© 1999 HealthPartners, Inc., Bloomington, MN

LIBRARY
FEB 0 9 2000
National Institutes of Health

# Minnesota Medicine

Published monthly by the Minnesota Medical Association



COVER
*Illustration by Randy Lybus.*

DEPARTMENTS

2 ..... Editor's Note

33 ..... MMA News & Views

59 ..... CME in Minnesota

64 ..... Classified Ads

67 ..... Index to Advertisers

68 ..... Just Write

BOOK REVIEW

**The High Cost of Progress**, a review by Charles R. Meyer, M.D., page 54.

*In "False Hopes: Why America's Quest for Perfect Health Is a Recipe for Failure," ethicist Daniel Callahan challenges Americans to accept the limits of technology and support "sustainable medicine."*

FACE TO FACE

6 **A Well-Engineered Medical Career** ..... Ralph C. Heussner Jr.
*John P. Abenstein, M.D., M.S.E.E., is applying his expertise as chair of Minnesota's Health Technology Advisory Committee.*

EDITORIALS

10 **The Costly Quest for Certainty** ..... Seymour Handler, M.D.
*Physicians are using expensive diagnostic tests to excess.*

14 **Not Insured, and Not Worried** ..... Robert H. Frank
*Despite a strong economy, our health insurance system is in a death spiral.*

COVER STORY

16 **The Cost of Coverage** ..... Allan Baumgarten
*Why are health insurance premiums on the rise in Minnesota but declining or holding steady in other states with heavy HMO penetration?*

FEATURE STORIES

20 **Health Care Decisions and the Community** ..... Rebecca Hafner, M.D., M.B.A.
*Medical Alley is involving the community in making decisions about the value of medical procedures and products.*

23 **Community Forums Bring Together Minnesota's Health Care Players** ..... Jennifer Thistle
*At forums across Minnesota, health plans, consumers, and others are considering how to control health care costs.*

26 **Is the Experimental Treatment Exclusion Used Appropriately?** ..... Reinhard Priester, J.D.
*Stakeholders in Minnesota's health care system have questioned the way coverage decisions are made for experimental interventions.*

SPECIAL REPORTS

29 **Pediatrics: A Century of Caring** ..... Charles N. Oberg, M.D., M.P.H., and Diana Becker Cutts, M.D.

42 **Minnesota's Medicare PRO Focuses on Quality Improvement** ..... Jane Pederson, M.D., M.S., Tom Arneson, M.D., M.P.H., and Jennifer Lundblad, M.B.A.

CLINICAL & HEALTH AFFAIRS

45 **Diagnosis and Management of Carotid Stenosis: A Review** ..... Eric S. Nussbaum, M.D.

PUBLIC HEALTH REPORT

51 **Minnesota Surveillance for Unexplained Deaths and Critical Illnesses of Possible Infectious Cause** ..... Jean Rainbow, R.N., M.P.H., Ruth Lynfield, M.D., James R. Johnson, M.D., and Richard N. Danila, Ph.D., M.P.H.

# The Drug War

Health care costs are rarely off the political radar screen. Lately, the strongest blip has been pharmaceutical costs. Like Messerschmidts over London, pharmaceutical firms are drawing fire. Politicians, economists, physicians, hospitals, and consumer groups share the same complaints: Drug companies are flush and getting flusher. Patients are broke and getting broker. And prescription drugs are pricey and getting pricier.



It's a drug war far from Medellin, and sorting out the combatants and the causes is tricky.

*"Drug companies spend too much on gimmicks, glad-handing, and gadgets hawking their products."*

In October, President Clinton fired a salvo when he ordered a federal study of drug costs. Citing the $44 it costs to buy a certain cholesterol-lowering medication in Canada vs. the $102 the drug costs in New Hampshire, Clinton proclaimed that "seniors shouldn't have to get on the bus to Canada to buy medicine."

This sentiment was echoed weeks later by a Families USA study showing that the price of 50 prescription drugs commonly used by the elderly rose 6.6 percent in 1998, when the overall inflation rate was 1.6 percent. For physicians accustomed to seeing patients suffering from pharmaceutical sticker shock, these stories were not news.

Pharmaceutical companies have returned fire by pointing to the cost and time that go into R&D for new drugs, pharmaceuticals' small share of national health costs, and the marvelous advances in quality of life their products have produced. Full-page magazine ads by America's pharmaceutical companies declare that they are "leading the way in the search for cures." The new drugs are better and worth the added cost, they contend. And contend they will, with anyone who will listen. I recently complained to a drug representative about the price of their drug, Prilosec. Two days later, I received a hefty packet of published studies with a four-page letter from the company, touting the cost-effectiveness of Prilosec treatment.

UCLA health services professor Stuart O. Schweitzer has written a cogent, objective analysis of the drug industry that cuts through all this political and defensive rhetoric. Despite its title, "Pharmaceutical Economics and Policy" is filled with readable prose and a minimum of economic curves and Σ-packed equations; it's an Econ 101 of 1990s pharmaceutical costs.

Schweitzer supports many of the drug companies' defenses for high drug costs. R&D for new drugs *is* expensive. Drug companies are investing an average of 16 percent of their revenues (for a total of $19 billion in 1997) in R&D on new drugs, which take an average of 10 years from lab to launch. Drugs are a relatively small proportion of national health expenditures (8.4 percent in 1994). The U.S.–Canada drug price differential, Schweitzer says, is overstated. Even though 121 drugs in a 1992 GAO study were 43 percent more expensive in the United States, the difference, he argues, was due to Canada's cost-containment regulations and provincial drug benefit plans, not drug industry profiteering in the United States.

Still, Schweitzer recognizes that drug costs are a major public concern; 28 percent of drug expenditures come out of the consumer's pocket. Ploys to cut drug costs include pharmacy benefit managers, formularies, drug utilization surveillance, and mail-order pharmacies.

Schweitzer also acknowledges the heavy investment in marketing and doctor schmoozing by drug companies. From 1992 to 1994, when their R&D costs were 11 percent to 15 percent of sales, Merck, Pfizer, and Eli Lilly spent 21 percent to 40 percent of their revenue on marketing and promotion. In 1991, the entire drug industry spent $5 billion on marketing, primarily to physicians—an average of $8,000 for every U.S. physician. (I receive multiple invitations every week to attend drug company–sponsored dinners and talks.)

*Editor's Note to page 57*

*Where knowledge and practice interact*




# CONTINUING MEDICAL EDUCATION

## Continuing Education and Extension, University of Minnesota

## 2000 Courses

**Brain to Pelvis—The 7th Conference**
Feb. 23–Mar. 3 • Beaver Creek, CO

**Geriatric Medicine and Drug Therapy**
March 1–2 • Minneapolis

**Prevention and Management of Atherosclerotic Disease**
March 1–3 • Minneapolis

**Tobacco Cessation Conference: Breaking the Nicotine Chain in 2000**
March 13 • St. Paul

**Cardiac Arrhythmias**
April 7 • Brooklyn Center

**Hepatobiliary and Pancreatic Disease**
April 7 • Minneapolis

**Allergy and Clinical Immunology**
April 14 • Minneapolis

**Annual Ophthalmology Course**
April 14–15 • Minneapolis

**Family Practice Review: Update 2000**
May 8–12 • Minneapolis

**Emerging Infections in Clinical Practice**
May 12 • Brooklyn Center

**6th International Symposium on MPS and Related Diseases**
May 19–21 • Minneapolis

**National Hepatitis Coordinators Meeting**
May 23–26 • San Diego, CA

**Cardiovascular Care for Primary Care Practitioners**
June 1–2 • Minneapolis

**North Central Neonatology Issues Conference (NCNIC)**
June 2–3 • Elkhart Lake, WI

**Annual Surgery Course: Advances in Trauma and Critical Care Surgery**
June 7–9 • Minneapolis

**Workshops in Clinical Hypnosis**
June 15–17 • St. Paul

**Topics and Advances in Pediatrics**
June 22–24 • Minneapolis

**Anticoagulation Clinics**
July 21 • Minneapolis

**Lasers in Cuteneous Surgery**
August 4–6 • Minneapolis

**Radiology Refresher Course**
August 26–30 • Napa Valley, CA

**Principles of Colon and Rectal Surgery**
September 7–9 • Minneapolis

**Heart Failure Society of America**
Sept. 10–13 • Boca Raton, FL

**Evaluation and Management of Peripheral Vascular and Cerebrovascular Disease**
Sept. 22–23 • Minneapolis

**Mechanical Ventilation: Principles and Applications**
Sept. 23–26 • Minneapolis

**Obstetrics and Gynecology**
October 9–10 • Minneapolis

**Internal Medicine Review**
October 11–13 • Minneapolis

**Continuing Medical Education, Medical School, University College**
Radisson Hotel Metrodome, Suite 107, 615 Washington Avenue S.E., Minneapolis, MN 55414
612-626-7600, 1-800-776-8636, www.med.umn.edu/cme
The University of Minnesota is an equal opportunity educator and employer.

# *Minnesota Medicine*

Published monthly by the Minnesota Medical Association

*Owner and Publisher*
Minnesota Medical Association

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Managing Editor*
Meredith McNab

*Associate Editors*
Lee J. Engfer
Margaret Parker

*Publications Assistant*
Katie Leonard

*MMA News & Views Editor*
Lorrie Holmgren

*MMA News & Views Writer*
Cynthia Lehman

*Graphic Designer*
Sarah Kirkwood

Send manuscripts, subscriptions, and other material for consideration to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/378-1875. E-mail: mm@mnmed.org
The editors reserve the right to reject editorial, scientific, or advertising material submitted for publication in *Minnesota Medicine.* The views expressed in this journal do not necessarily represent those of the Minnesota Medical Association, its editors, or any of its constituents. Annual subscription–$40. Single copies–$3.50. Canadian–$70. Foreign–$70.

***To Advertise:*** Contact Michele Holzwarth, *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/623-2880 or 800/DIAL MMA (342-5662).



**Advisory Committee**

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Advisory Committee*
Charles R. Meyer, M.D.
Edmund C. Burke, M.D.
Richard C. Lussky, M.D.
Lynne Ogawa, M.D.
Paul S. Sanders, M.D.
Leif I. Solberg, M.D.
Barbara P. Yawn, M.D.
Meredith McNab, staff

*Editors Emeritus*
Edmund C. Burke, M.D.
1991-1993

Richard L. Reece, M.D.
1975-1990

Reuben Berman, M.D.
1971-1974

Carl O. Rice, M.D.
1961-1970



**Copyright & Post Office Entry**

*Minnesota Medicine* (ISSN 0026-556X) is published on the fifth of each month by the Minnesota Medical Association, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761, copyright 2000. Permission to reproduce editorial material in this magazine must be obtained from *Minnesota Medicine*. Periodicals postage paid at Minneapolis, Minnesota, and at additional mailing offices. POSTMASTER, send address changes to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761. (USPS 3519000.)



MINNESOTA MEDICAL ASSOCIATION

**1999–2000 Officers**

*President*
John M. Van Etta, M.D.

*President-Elect*
Blanton Bessinger, M.D.

*Chair, Board of Trustees*
Paul C. Matson, M.D.

*Vice President*
Kevin C. Fleming, M.D.

*Secretary*
David L. Estrin, M.D.

*Treasurer*
Noel R. Peterson, M.D.

*Speaker of the House*
Gary D. Hanovich, M.D.

*Vice Speaker of the House*
Rebecca Jean Hafner, M.D.

*Past President*
Judith F. Shank, M.D.

*Chief Executive Officer*
Paul S. Sanders, M.D.

**MMA Senior Staff**

*Director of Communications*
Lorrie Holmgren

*Chief Financial Officer*
George C. Lohmer Jr.

*Director of State and Federal Legislation*
David Renner

*Director of Health Law*
Christina F. Rich, J.D.

*Director of Health Economics and Policy Analysis*
Janet Silversmith

*Director of Executive Office*
Karen A. Tourdot

**Alliance**

*President*
Sandra Weissler

*President-Elect*
Diane Gayes

**Board of Trustees**

*N.W. District*
Jerry P. Rogers, M.D.

*N.E. District*
James L. Anderson, M.D.
Charles R. Helleloid, M.D.

*N. Central District*
James J. Dehen Jr., M.D.
Keith D. Larson, M.D.

*West Metro*
Lee Beecher, M.D.
Karen K. Dickson, M.D.
John W. Larsen, M.D.
Robert K. Meiches, M.D.
Henry T. Smith, M.D.

*East Metro*
Thomas Dunkel, M.D.
Joseph L. Rigatuso, M.D.

*S.W. District*
Paul C. Matson, M.D.
Elton G. Wing, M.D.

*S.E. District*
Peter Amadio, M.D.
G. Richard Geier Jr., M.D.
Kimberly McKeon, M.D.

*Resident Member*
Andrew G. Moore, M.D.

*Medical Student*
Joel V. Oberstar

**AMA**

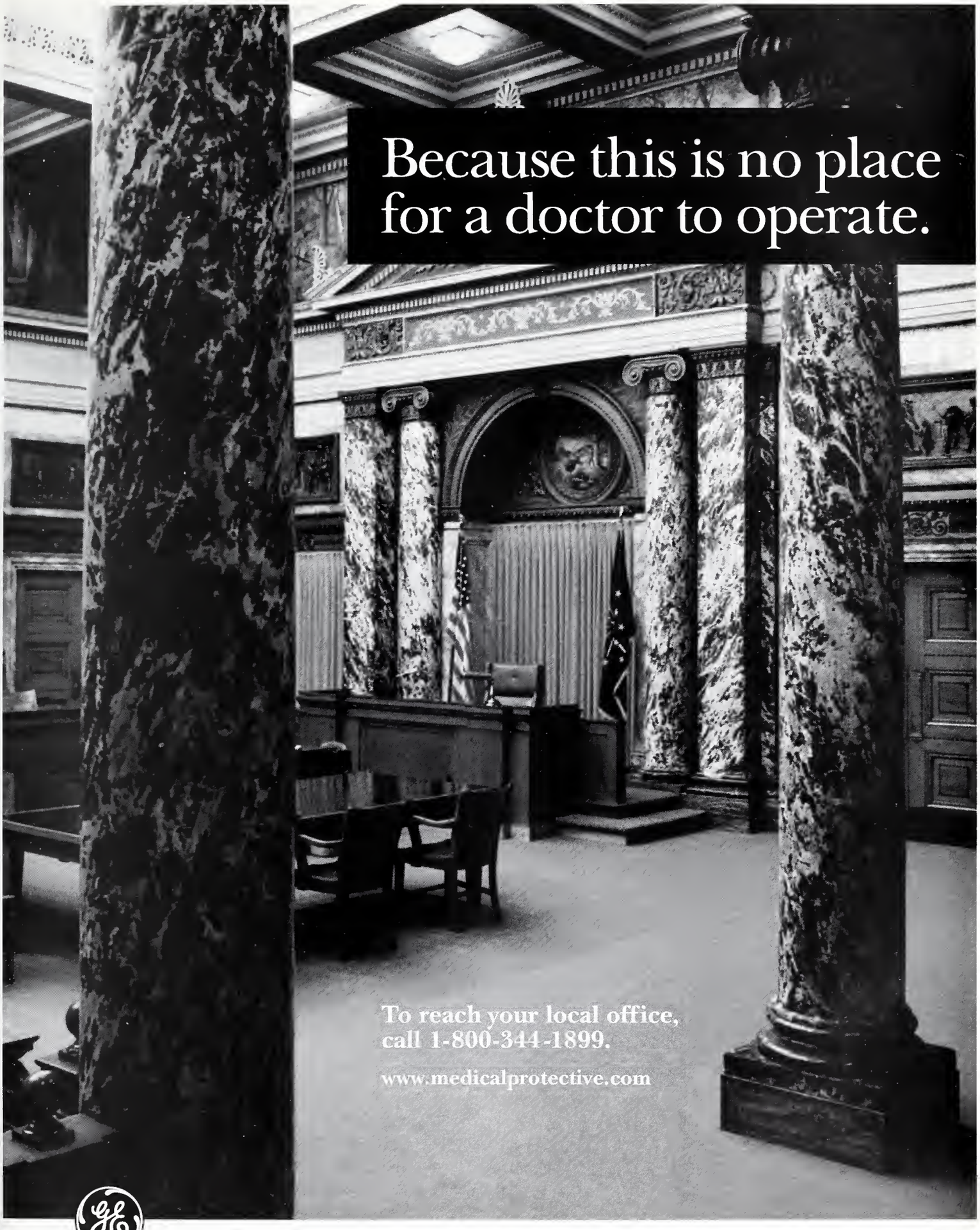
*AMA Delegates*
Robert D. Christensen, M.D.
A. Stuart Hanson, M.D., *Chair*
Frank J. Indihar, M.D.
Carolyn J. McKay, M.D.
Audrey M. Nelson, M.D.
Ben P. Owens, M.D.
Andrew J.K. Smith, M.D.

*AMA Alternates*
Raymond G. Christensen, M.D.
Kenneth W. Crabb, M.D.
Anthony C. Jaspers, M.D.
Lyle Munneke, M.D.
Thomas L. Peyla, M.D.
Sally Trippel, M.D.
John M. Van Etta, M.D.



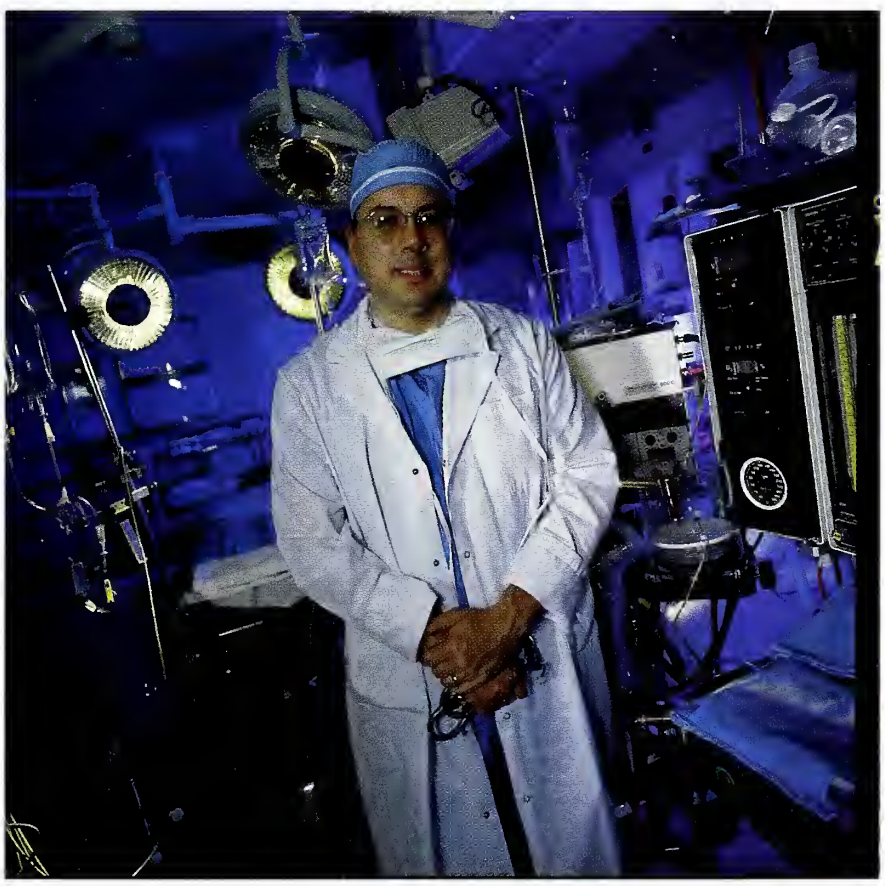
**MMA Address**

Minnesota Medical Association
3433 Broadway Street NE, Suite 300
Minneapolis, MN 55413-1761
Phone: 612/378-1875 or 800 DIAL MMA (342-5662)
Fax: 612/378-3875
E-mail: mma@mnmed.org
Web site: www.mnmed.org




***The Medical Protective Company®***

# A Well-Engineered Medical Career



PHOTOGRAPH BY JOE KANE, MAYO CLINIC

As chair of Minnesota's Health Technology Advisory Committee, John P. Abenstein, M.D., M.S.E.E., tries to balance the needs of the individual and the community in assessing new health care technologies.

By Ralph C. Heussner Jr.

For friends and colleagues of John Abenstein, it might be hard to believe that one of his college professors once questioned his smarts.

"I was a triple major—electrical engineering, biomedical engineering, and computer science," says Abenstein. "During my junior year, a professor pulled me aside and said, 'You're being real dumb. No one cares about multiple majors. It won't make any difference at all in terms of your career. If you had any brains, you'd go to graduate school.' "

Abenstein followed the advice about grad school but eventually proved that he was smarter than the professor, at least about the wisdom of multiple majors. Today, as a leading cardiac anesthesiologist at the Mayo Clinic, he's practicing a "triple major," combining elements of medicine, technology, and computer science in one career. That makes him ideally qualified for his position as chair of Minnesota's Health Technology Advisory Committee (HTAC), a nonpartisan, independent body that evaluates new and emerging health care technologies. HTAC meets in the Twin Cities and is staffed by the Minnesota Department of Health.

## *A Sputnik Scholar*

Growing up in suburban Chicago, Abenstein, who was born in 1955, was a child of America's race to the moon. "My high school was investing a huge amount of money in the math and science curriculum," he says. "We often said that we were 'Sputnik Memorial Scholars.' "

Although generally interested in medicine, Abenstein pursued an undergraduate degree in biomedical engineering at Duke University. "It made sense to me to go into an area that I liked—technology, science, and math—so if medicine didn't work out, or if I changed my mind, I would have a career in a field that I was interested in."

Following the professor's advice, Abenstein went to the University of Wisconsin for his master's in electrical and computer engineering. "I had really fallen in love with and enjoyed engineering to such a great degree that I simply wanted more education," he says.

His research area was EKG analysis. Thanks to funding from a retired cardiologist, Abenstein, his fellow graduate students, and his graduate school adviser developed a device for outpatients that could analyze the EKG and signal an alarm if dangerous arrhythmia was detected. "The patient would go to a telephone and the device would transmit the EKG signal to a hospital or clinic to look at," Abenstein explains. "That was the vision, and it was about 10 years ahead of its time technologically."

Abenstein was assigned to write a computer program for the device that compiled and compressed data. "Unlike today, where you have 100 megabytes of RAM, the microcomputers of the time had 4K of RAM—program and storage. We had to develop algorithms to get the best reconstruction, and compress information into as small a space as possible, and do it in such a way that it didn't consume a lot of computing time."

After graduating from Wisconsin, Abenstein went to Loyola University of Chicago's Stritch School of Medicine. "A lot of medical students who like to do things with their hands—as most engineers do—dabble with the idea of surgery," Abenstein says. "Because of my previous research monitoring EKG modalities at Wisconsin, I went to medical school with much more knowledge of the role of anesthesiology than a typical medical school student. As I went through my rotations, it became clear that anesthesia was the perfect fit for what I wanted to do."

## HTAC Assessments

### *In Progress or Pending*

Vaccinations for diseases
Surgical alternatives to hysterectomy
Human growth hormone as a treatment for children of short stature
Dental implants
Preoperative autologous blood donations
Herbal therapy — St. John's wort, kava kava

### *Completed in 1999*

Autologous chondrocyte implantation for degenerative joint disease/osteoarthritis
Preventive therapies for women at increased risk for breast cancer
Positron Emission Computed Tomography: oncologic applications
Obstructive sleep apnea in adults (questions and answers)
Refractive eye surgery (report)
Surgery for obstructive sleep apnea in adults (report)
Automatic external defibrillators (issue brief)
New technologies for cervical cancer screening

After fulfilling a three-year commitment with the U.S. Navy, Abenstein joined Mayo Clinic's Department of Anesthesiology in 1988. "I've tried very hard to stay up on medical technology and engineering to the extent that is realistic," he says. "My interests now gravitate more to an administrative environment of managing technology. The little bit of research I've done over the years, in terms of technology, has been in terms of validation—looking to see if they really work and, in fact, most don't."

Abenstein, who also chairs several Mayo technology committees, has helped develop the institution's electronic medical record system.

## *HTAC Calls*

Abenstein is one of the original members of HTAC, created in 1992 by the Minnesota Legislature to "apply perspective" to medical developments, including new drugs, devices, and procedures. It's the only organization of its kind in the country. "My only prior interest in public policy was limited to reading the *Wall Street Journal,*" Abenstein says. "I was asked to serve on HTAC because of my technology background.

"But I also believe strongly that this kind of work does need to be done. Unlike some of the commercial assessment companies, which base their evaluations strictly on the scientific literature, we attempt to also address clinical relevance and interpretation as well as statistical significance."

## *Controversy Welcome*

After becoming chair last July, Abenstein wrote in an HTAC newsletter: "Whatever the subject being addressed, I promise that we will not stay away from assessing issues just because they are controversial."

Abenstein has been surprised that HTAC's decisions have not drawn the fire that he once expected. "Years ago, we had visions that if we picked up on a controversial topic, there might be protesters here, or people throwing tomatoes. But it just hasn't turned out that way. Maybe it's because people don't think we're that relevant. Or maybe our approach hasn't been that controversial—to learn what is known in scientific literature and then put it into a context."

Abenstein says the one area HTAC has shied away from is alternative medicine, a decision he now questions. "I'm concerned whenever I see claims on television to take this pill and your brain will improve, or take this pill and lose 20 pounds. The public is seeking the input of alternative health practitioners.

"We should look at these to determine if they are efficacious. Despite the claims, it may be that long-term outcomes have the potential to be just the opposite. Or perhaps some alternative medicine will be shown to be efficacious. If so, it's not alternative but medicine. It's only with a group like us looking into it that we will know the answer."

Abenstein proposed that HTAC review the use of St. John's wort and kava kava. Reports on those herbs are expected to be released this year. "There's no question there's biological activity," he says. "But are they efficacious? One St. John's wort study out of Germany says it produces a pharmacological effect similar to Prozac activity. Kava kava seems to have a valium-like effect. But the main reason I brought it up was the concern about people taking St. John's wort and hypertensive medicines at the same time. We're looking at the effect of drug interactions and patient safety."

## *Patient Advocate*

Abenstein says that in his role he tries to remain objective in finding a balance between the needs of the community and the individual. As one of six physicians on the 18-member HTAC board, he tries to serve as a patient advocate. "You can have hour after hour of discussion on needs of individual patients and needs of society," he says. "If it costs a million dollars to save one life, do we do it? Or do we use the money to insure immunizations, but at the expense of one individual? It sounds crass, but we do look at some issues as to how they may affect populations at large compared with how they may affect individuals.

"As a physician, I have a tendency to side more with whatever will help the individual patient."

## *Mad for Macs*

When he's not in the operating room or reading and writing reports for HTAC, Abenstein says he "spends too much time on the Internet goofing around." He calls himself "an avid, rabid, long-term Mac user. I have five Macs in my home and four people live in it." His wife of 19 years, Sandy, is an architect who specializes in residential design. They have two children, Jessica, 13, and Jarrett, 10, "who are growing up at a frightening rate." A serious reader of science fiction, Abenstein is also interested in Asian art and architecture, plays the ancient oriental game of "Go," and has practiced judo since childhood. MM

*Ralph Heussner is a freelance health and medical writer in Minnesota.*

MMA
MINNESOTA MEDICAL ASSOCIATION
Legislative Summit 2000

Endorsed by:

Minnesota Medical Association Alliance

Minnesota Academy of Family Physicians

Minnesota Academy of Ophthalmology

Minnesota Academy of Otolaryngology

Minnesota Society of Anesthesiologists

Minnesota Association of Physician Assistants

Minnesota Orthopaedic Society

The Minnesota Section of the American College of Obstetricians and Gynecologists

MMA
MINNESOTA MEDICAL ASSOCIATION
MEDICINE'S VOICE IN MINNESOTA

# You can make a difference in Minnesota's political future!

# Attend the Legislative Summit 2000!

Jointly sponsored by the
Minnesota Medical Association and
the American Medical Association

## Sunday, January 23, 2000
## 1:30 p.m.
## Northland Inn

**7025 Northland Drive, Brooklyn Park, MN**
**(Highway 694 and Boone Avenue)**

- Become a player in the legislative process
- Hear the legislative perspective on health care from House Majority Leader Tim Pawlenty
- Learn the keys to effective grassroots lobbying
- Earn CME credit

Watch your mail for upcoming details or call the Center for Physician Advocacy at 1-888-662-6774 or visit us on the web at www.mnmed.org
(click on Legislation, Law and Policy)

# The Costly Quest for Certainty

New diagnostic imaging procedures have spurred major advances in diagnosis and therapy, but physicians are now using these tests to excess.

By Seymour Handler, M.D.

A decade ago, stimulated by an *NEJM* article by Jerome Kassirer, M.D., I addressed the "quest for certainty" in medicine. Excessive diagnostic efforts continue today and are even worsening. The growth of expensive technology further contributes to the escalating cost of medical care. Two recent cases exemplify these problems.

## *Case Examples*

The first patient was a middle-aged woman with an aggressive breast cancer. There was dermal lymphatic permeation (pathologically diagnostic of inflammatory carcinoma), and nine of 10 axillary nodes had metastases. By all prognostic parameters, despite adjuvant chemotherapy, the patient's survival chances were slim. She had short-term symptoms of ataxia and weight loss; she appeared very ill, almost terminal. CT scans of head, bone, and liver confirmed widespread metastatic disease. A CT-guided percutaneous needle biopsy of the liver was also performed and revealed metastatic disease. The patient was referred to hospice and died soon afterward.

Why three CT scans were performed is unclear; any one of these would have been adequate. Not only was the number of imaging studies excessive, but the liver biopsy was diagnostic overkill. It was 100 percent clear that the patient was dying of metastatic cancer. Why was she subjected to an additional diagnostic study when the answer was available and the information provided would not alter management? How sure do we have to be?

The second patient was a 47-year-old woman, previously in excellent health, with progressive back and upper thigh discomfort. After a trial of conservative symptomatic therapy afforded no relief, and ambulation was becoming very difficult for the patient, plain x-ray of the thigh revealed a lytic lesion in the metaphysis of the femur. Orthopedic physicians planned to explore the femur and place hardware to prevent a spontaneous pathologic fracture.

A routine chest x-ray revealed a pulmonary lesion consistent with a neoplasm. A CT-guided needle biopsy of the lung lesion was attempted. Three days later, the orthopedic nailing was accomplished, yielding tumor tissue diagnostic of a metastatic lung tumor.

Why was a needle biopsy of the lung attempted when it was clear that a few days later diagnostic tissue would be obtained during the orthopedic procedure? Was there some belief that the pulmonary lesion and the lytic lesion in the femur were unrelated? Is it conceivable that this previously well patient had two separate diseases? Could both the pulmonary lesion and the femur lesion be metastases from a previously unknown primary tumor? My answer to these possibilities is, "Nonsense!" After all, how sure do we have to be?

## *Possible Reasons for the Quest for Certainty*

A variety of explanations or rationalizations have been offered to explain why excessive diagnostic procedures are performed when a far simpler and less expensive approach would be equally fruitful.

• *Medical and Legal Concerns.* "If you don't perform all the tests remotely of value in assessing a patient, you will be criticized or sued." This widely held idea is utter nonsense, a form of paranoia unsupported by facts or experience. No physician is required to be 100 percent correct in arriving at a diagnosis. Subjecting a patient to unnecessary or redundant and potentially painful or dangerous studies may be a more likely reason for litigation—but one that I believe is equally improbable. Doing more studies than necessary does not protect against malpractice action. Doing an appropriate number of studies is the best protection.

Although the public is indeed enamored of tests, a thorough clinical evaluation—a careful and detailed history—is the best way to engender patient rapport. William Osler, a century ago, emphasized the important role of the history in making a diagnosis. The same is true today. Substituting tests for a good history is not only expensive, it is also less effective.

• *Remunerative Justification.* Diagnostic studies, notably radiologic imaging procedures, represent a major source of income for hospitals and radiology departments. After all, CT and MRI scanners are very costly capital expenditures; the more they are used, the quicker the amortization. Despite this fiscal advantage to the hospital, performing excessive imaging procedures eventually raises the total cost of health care.



SUSAN FARRINGTON/ARTVILLE

There is no question that modern imaging procedures—particularly CT and MRI—increase speed and accuracy of diagnosis. Nevertheless, this advantage is only significant if these procedures are performed with appropriate indication. The advantage is lost if the diagnostic information is already available or can be obtained by simpler and less expensive means, such as a thorough clinical history and a bit of thought. It is not necessary to be 100 percent certain; 98 or 99 percent may be enough, particularly if the additional 1 or 2 percent costs as much as the original 98 percent.

• *Physician Comfort.* This may be what the quest for certainty is all about. With each additional confirmatory test, the certainty of the diagnosis improves incrementally and the physician's comfort level increases. But is physician comfort a justification for unnecessary testing? Is it

appropriate for patients and society to pay for our comfort?

Take, for example, the diagnosis of iron lack anemia in a 1-year-old child who consumes only milk. The child is pale and fussy. Some physicians might suggest oral iron therapy, without any laboratory tests. Most likely, a hemoglobin determination would be performed to confirm anemia. Since the MCV incurs no additional cost, that parameter defines microcytic anemia due to iron lack without further testing. The diagnosis is firm and management simple. For physicians seeking greater "comfort," we could do iron-binding capacity, serum ferritin, and even hemoglobin electrophoresis. These additional tests would elevate diagnostic certainty to greater than 98 percent but would also increase costs by a factor of 50. Additional tests would rule out zebras, but as the saying goes, "If you hear the clopping of hooves in the distance, it is likely to be a horse, not a zebra."

• *Technology and Education.* These two seemingly separate factors may reinforce each other in the excessive use of tests. They may also be the most difficult to change. Impressive advances in diagnostic imaging have occurred in the past two decades. CT, MRI, and interventional radiology have spurred major advances in both diagnosis and therapy. Many physicians now simply order imaging procedures to make diagnoses; they no longer think. Recent medical graduates have known nothing else; imaging procedures formed the basis of their training. They may find it difficult to function without CT and MRI. Young physicians appear oblivious to the fact that clinicians prior to the CT and MRI era made diagnoses reasonably accurately and promptly and with a heck of a lot less cost. Physicians of an earlier era took good histories, thought a bit, then came to a conclusion. True, things are now easier—possibly better—but they are also much more expensive.

## *Using the Brain in Addition to Tests*

Turning back the clock is not a realistic or appropriate solution to excessive testing. In the realm of radiologic imaging procedures, probably the major source of diagnostic abuse, imaging tests have demonstrated great value in diagnosis and therapy. Unfortunately, the tendency to use these procedures to excess is equally great. The tests should not be done if the answer is already known. They should not be used just because they are "state of the art" or because "everyone" is using them. They should be used selectively, to make a diagnosis that cannot be achieved by simpler means.

This is not an indictment of radiology or interventional radiology. Radiologists have little power to limit unnecessary tests. For procedures such as CT and MRI, the test is already done before the radiologist has any contact with the patient. In addition, radiologists may not have sufficient clinical information about a patient to justify questioning whether a procedure is needed. That responsibility lies with the clinician who orders the test.

On the other hand, for interventional procedures that use needles and catheters, it is feasible for a radiologist to approve or disapprove the procedure. In making this decision, the radiologist depends to a significant extent on the judgment of the referring physician. Ordinarily, consultation with specialists has already occurred. Although primary care physicians are less involved with sophisticated interventional procedures, if the primary physician knows enough about a case to justify intervention, the radiologist will go along.

"Young physicians appear oblivious to the fact that clinicians prior to the CT and MRI era made diagnoses reasonably accurately and promptly and with a heck of a lot less cost."




A sense of history offers valuable perspective. Talented physicians of an earlier era came to a correct diagnosis on purely clinical grounds, supplemented by a few simple tests. Medical care was not only effective, but it was also much less costly. Evidence does not suggest that physicians of the 1960s and '70s made more errors than those of today. In fact, studies documenting discrepancies between premortem diagnoses and autopsy findings show that the incidence of significant errors is the same today as it was decades ago. Perhaps this consistency, despite modern sophisticated diagnostic procedures, tells us that physicians of yesteryear used their brains more effectively. If we could return to some of the philosophy of medical care of a bygone era, health care costs would be controllable, but patient care would not suffer. MM

*Seymour Handler is an associate pathologist at North Memorial Medical Center and a former assistant professor (retired) in the Department of Laboratory Medicine and Pathology at the University of Minnesota Medical School.*

# This year, stop writing checks for your auto insurance.

**Fast, efficient service is designed for your lifestyle.**

- Our 24/7 claims service lets you file a claim according to your schedule, not ours.
- Depending on the claim, an adjuster can be on-site within 24 hours and may be able to issue a check on-the-spot!

MMBR
Minnesota Medical Business Resources
Owned By MMA & HMS

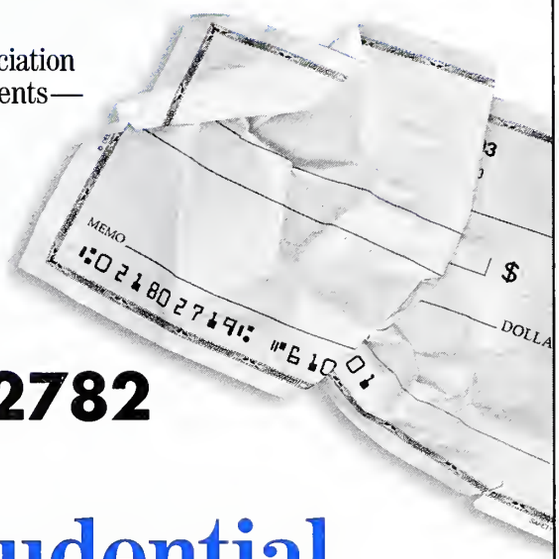
Prudential has teamed up with the Minnesota Medical Association to bring you the convenience of electronic premium payments—and hard-to-beat rates!

**Electronic payment saves time and hassles.** Prudential's easy payment option allows automatic monthly withdrawals from your bank account. That means you won't have to worry about writing checks for auto insurance premiums!

**Discounts lower your premiums.** MMA members enjoy group discounts, and other discounts from Prudential for anti-theft devices, low annual mileage, multiple cars and more—plus a 15% discount for having a Prudential homeowners policy.

**How much can you save? Call for a free quote.** Get your free no-obligation quote by phone in less than 10 minutes. Just call,

**800-637-2782**




Prudential

Merostor Insurance Company, Chottonoogo, TN 37411, o subsidiory of The Prudentiol Insurance Company of Americo. IFS-19991129-A049258



HealthPartners®
*Institute for Medical Education*

CME

CONTINUING PROFESSIONAL DEVELOPMENT 2000 OFFERINGS

| | |
|---|---|
| Family Medicine Today | March 9 – 10, 2000 |
| OB/GYN Update | April 28 – 29, 2000 |
| Burn Care Today | May 4 – 5, 2000 |
| Strategies in Primary Care Medicine | October 12 – 14, 2000 |
| Critical Care | November 9 – 10, 2000 |
| 22nd Annual Cardiovascular Conference | December 7 – 8, 2000 |

In 1996, the HealthPartners Institute for Medical Education (IME) was created to support the ongoing development of excellence in clinical practice through a wide variety of educational services. The Institute has development, coordination and oversight responsibilities for the undergraduate, graduate and continuing education initiatives for health professionals within the various divisions of HealthPartners including Regions Hospital.

FOR FURTHER INFORMATION CONTACT:
*Institute for Medical Education*
*Continuing Professional Development*
*640 Jackson Street*
*St. Paul, MN 55101*
*Phone 651-221-3992 • Fax 651-292-4773*



# Not Insured, and Not Worried

Despite a booming economy,
our health insurance system is in a death spiral.
Here's how the government can stop it.

ROBERT H. FRANK

Last fall we learned that poverty in the United States has been declining of late, but now we're told that the number of Americans without health insurance has risen to 44.3 million—833,000 more than a year ago and 4.5 million more than when Bill Clinton took office in 1993. Even in households with annual incomes of at least $50,000, the number of people without insurance increased last year, to 12.2 million.

In the midst of the longest sustained economic boom in history, with the lowest unemployment rate in 30 years, how is it possible that the ranks of the uninsured keep swelling?

The simple answer is that millions of American families continue to experience day-to-day financial distress. Last year, for example, one of every 68 families filed for bankruptcy, more than the number of families with children graduating from college.

Under the circumstances, it is easy to see why many families that have enjoyed good health are tempted to press their luck. After all, health coverage for a family of four with no preexisting medical conditions costs upward of $3,000 a year, which is almost always far more than what such a family spends on medical services. The extra cash could help pay for a move into a better school district, for example, or at least keep creditors at bay.

Of course, in the event of a catastrophic illness, the hoped-for savings would vanish, and then some. Yet many Americans ignore this possibility. In fact, most of us have an unwarranted, not to say preposterous, degree of optimism regarding our own future well-being.

Surveys reveal that we see ourselves as far more likely than our peers to earn large salaries in the future, for example, and far less likely to get divorced or suffer from lung cancer. We may know that some families will have health problems, but we don't think we'll be among them.

As more people cancel their health coverage, going without insurance becomes more socially acceptable. Parents who didn't buy health insurance for their families were once viewed as irresponsible, but this stigma inevitably loses its sting as the number of uninsured grows.

Making matters worse is the changing composition of the pool of the insured. As more healthy families forgo coverage, those left tend to be sicker and more costly to treat, forcing up premiums.

A similar dynamic is at work on the employer's side. Not long ago, many workers would never have considered a job that didn't include health insurance. As more employers, particularly small businesses, offer jobs with no coverage, however, it becomes more difficult for workers to avoid them.

In turn, these employers have lower operating costs, allowing them a competitive edge and putting further



ILLUSTRATION BY LONNI SUE JOHNSON INC.

pressure on businesses that continue to offer such benefits.

In short, our health insurance system is in a death spiral. Despite President Clinton's effort to expand coverage for uninsured children, we now have more uninsured children than ever. Vice President Al Gore's plan to broaden children's coverage is only a marginal improvement.

Former Sen. Bill Bradley's proposal would substantially broaden coverage for both children and adults, but, as even he concedes, it probably would not be enough. Gov. George W. Bush has yet to weigh in on this issue.

The good news is that the government could eliminate the death spiral by simply reimbursing each family up to $3,000 a year for health insurance. Government bureaucrats would not need to prescribe which doctors we see or micromanage any of the other details. They would simply process insurance receipts and send out reimbursement checks.

This plan sounds expensive, but would actually be far less costly than the current system. The principal savings would come from delivering more cost-effective care to those who are now uninsured.

As it stands now, the untreated minor illnesses of the uninsured often develop into major illnesses, which are far more costly to treat. And when such illnesses befall the uninsured, we almost always treat them, often in costly emergency rooms. The resulting burden on hospitals leads to higher fees and increased government support—both of which now come largely out of the pockets of high-income taxpayers with health insurance.

The total budget needed to finance a $3,000 health insurance reimbursement for every American family—some $200 billion a year—would obviously require higher taxes. But for those whose employers currently provide health insurance, these taxes would be offset by an increase in salaries.

After all, companies offer insurance not because they are charitable, but because they find doing so an effective way to compete for workers. Any company that did not offer higher salaries to previously insured workers would risk losing them to a company that did.

A universal reimbursement program would impose no net burden on taxpayers, because of both salary adjustments and reductions in the high cost of care for the uninsured. By providing a powerful incentive for all families to buy insurance, it would reverse the current downward spiral.

Critics of health care reform will say that if some people want to save money by going without health insurance, that's their problem or their choice. Perhaps, but it's a problem for the rest of us as well, one that if left untended will grow steadily worse.

Our unwillingness to deal with this problem is even more profoundly irrational than the uninsured family's belief in its immunity from serious illness. MM

*Robert H. Frank, an economics professor at Cornell University and the author of "Luxury Fever," wrote this article for* The New York Times.

*Copyright © 1999 by* The New York Times Co. *Reprinted by permission.*

# The Cost of Coverage

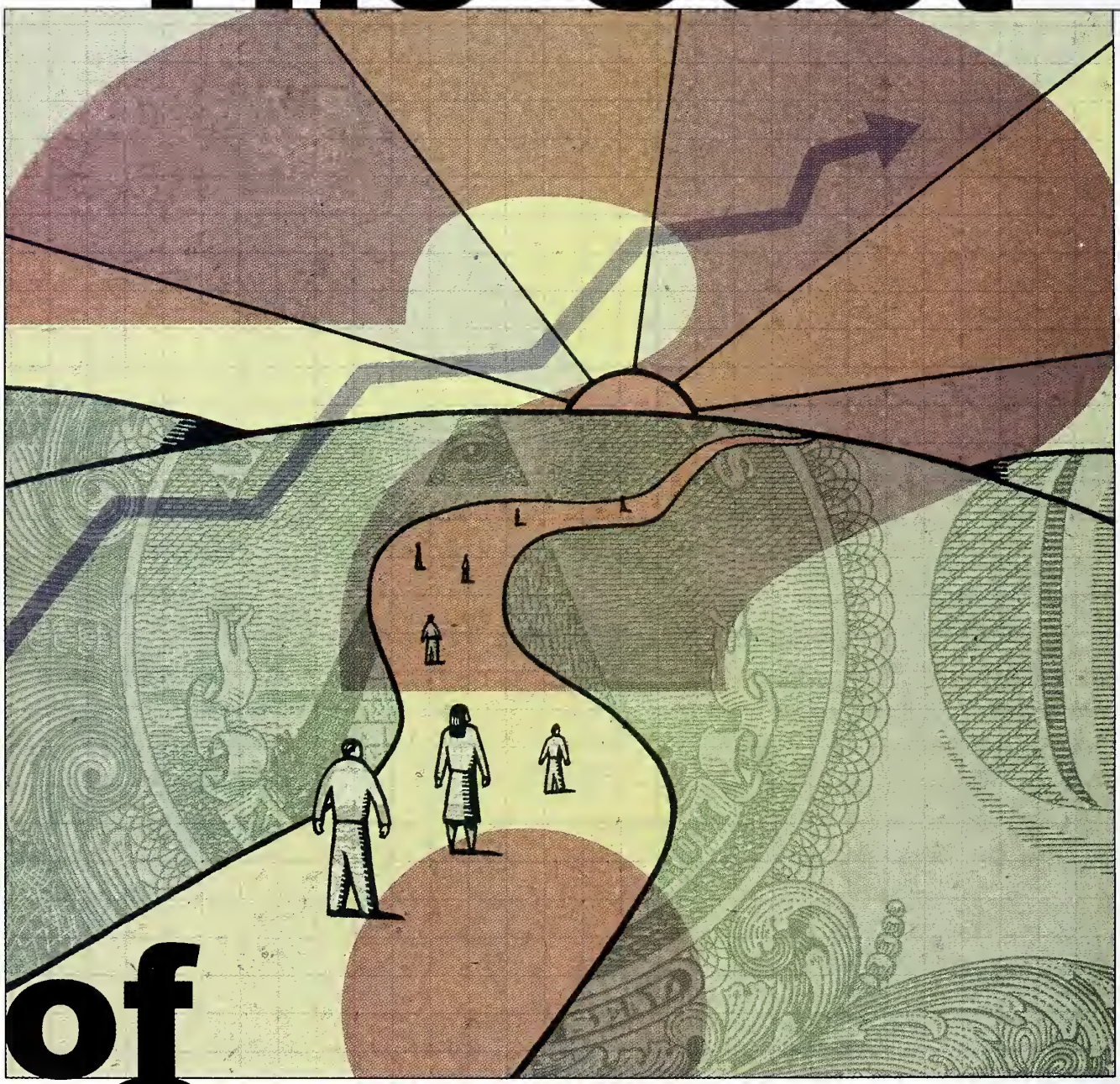


ILLUSTRATION BY RANDY LYHUS

ALLAN BAUMGARTEN

**HEALTH INSURANCE PREMIUMS ARE ON THE RISE IN MINNESOTA BUT DECLINING OR HOLDING STEADY IN OTHER STATES WITH HEAVY HMO PENETRATION. WHY THE DIFFERENCE?**

Health insurance premiums in Minnesota are rising faster and higher than in other states. Employers large and small in the state are reporting that they face double-digit premium increases in the year 2000. But insurance premiums, which are an important measure of the cost to employers of providing health benefits, do not necessarily reflect what is happening with the cost of health care itself.

As a recent report from the Minnesota Department of Health reminds us, premium rates are set based on historic costs, often without the most complete or current information.[1] Planned increases may be tempered by a variety of factors, including employer size and marketplace competition. Insurance premiums tend to move in multiyear cycles. In some years, insurers may seek significant increases to make up for inadequate premiums in earlier years.

The challenge to health insurers is to align the premiums they collect with their costs of claims and administration and an allowance for profit. They point to a number of factors driving up costs—consumer demand for new prescription drugs, an aging population, and the demands of physicians and hospitals to be paid more. Still, the recent increases show that there are more fundamental issues at stake here, including the impact of competition (or lack thereof) on health care costs in local markets, the value of the medical management provided by health maintenance organizations (HMOs), and the relationships among providers, health plans, and purchasers.

At the end of December 1998, about 950,000 Minnesotans were enrolled in HMO plans to which their employer paid premiums to provide comprehensive medical care to those households. That is about one in five Minnesotans, though that number has actually declined in recent years. Back in 1994, HMOs collected an average of $119 per member per month for that coverage. That number declined slightly in 1995, a year when some HMOs were offering low prices to increase or maintain their market share. The figures presented are based on *Minnesota Managed Care Review,* an annual analysis of trends and issues in the Minnesota health care market. Rather than comparing the rates filed each year by the HMOs, I have compared the year-to-year change in average revenue collected per commercial enrollee.

This downward trend didn't last long, however; premium revenues turned upward by 1996. Figure 1 shows the trend from 1994 to 1998 for the three largest HMOs in the state as well as the state average. Those three plans—Blue Plus (owned by Blue Cross and Blue Shield of Minnesota), HealthPartners, and Medica (part of the Allina system)—enroll 96.4 percent of insured commercial HMO enrollees in the state.

By 1998, the trend had turned sharply upward. Premium revenues increased by 4 percent in 1997 and 7.3 percent in 1998, when Minnesota HMOs collected an average of $132.59 per member per month for commercial enrollees.

This analysis does not adjust for changes in benefit design that mitigate the amount of the increase to the employer and the HMO but raise costs for enrollees. For example, a health plan may quote a 12 percent increase to an employer but reduce that by increasing the enrollee copayment for office visits or prescriptions. It may increase or add a new copayment for inpatient hospital admissions. According to HMOs and employers in the state, these changes in benefit design have been very common in the past few years.

From 1995 to 1998, Minnesota HMOs went from strong surpluses on their commercial business ($23.2 million in 1995) to harsh losses ($18.3 million in 1996) to break-even in 1998 (a surplus of $1.7 million). (See figures 4 and 5.) These shifts were made possible with the help of four straight years of tens of millions each year in investment income.

FIGURE 1

Commercial HMO Premium Revenue by Three Largest HMOs in Minnesota, PMPM*

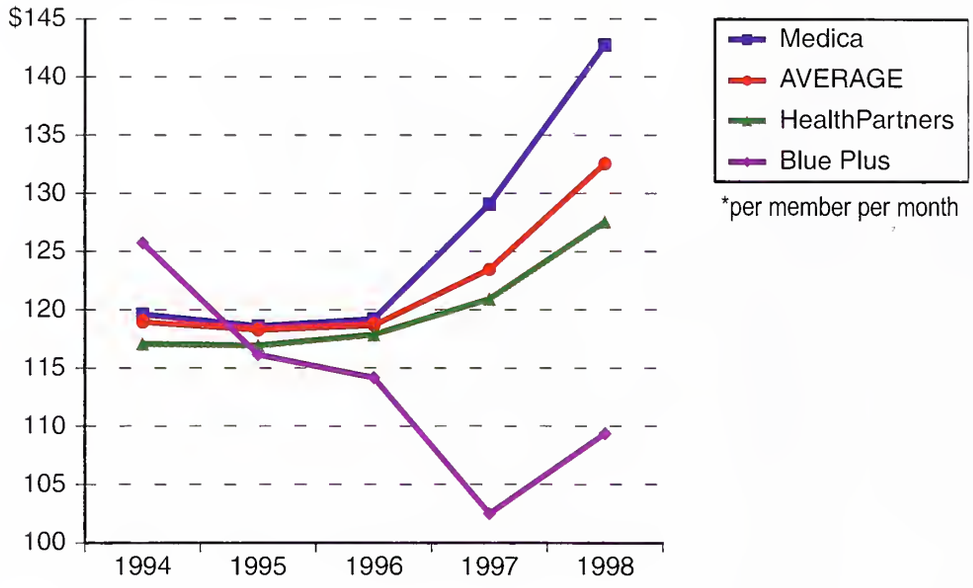



FIGURE 2

Commercial HMO Premium Revenue by State, PMPM*

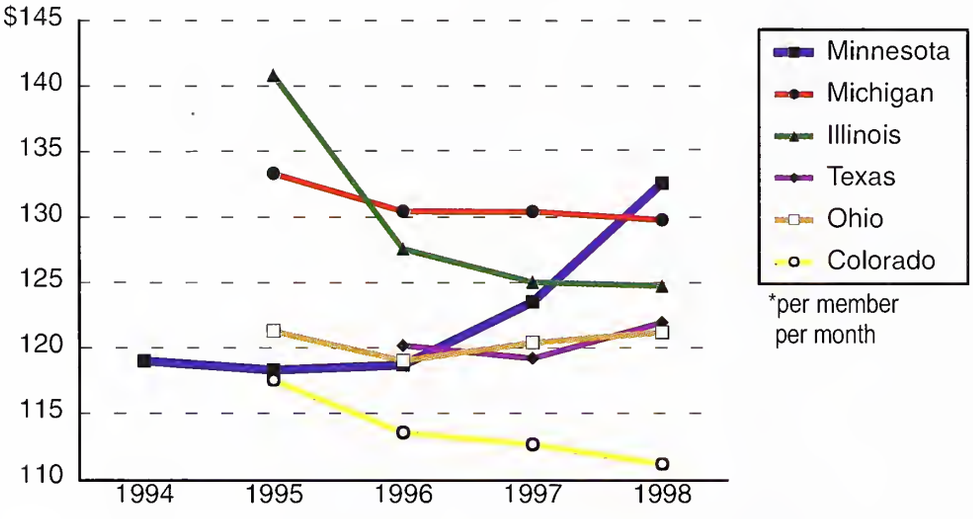
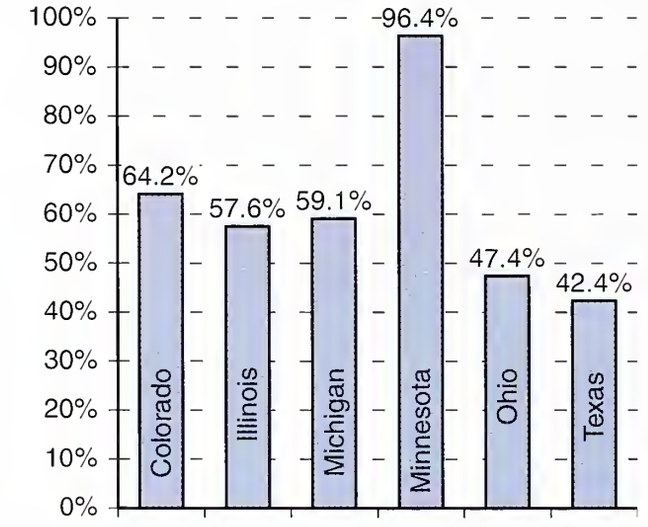



FIGURE 3

Percentage of Commercial HMO Enrollment Held by Three Largest Plans




## HMO Premiums outside Minnesota

What was happening to HMO premiums in other states during those years? Figure 2 compares Minnesota with five other states in which I publish annual market studies. Like Minnesota, these states have significant HMO penetration. Unlike in Minnesota, much of their growth in HMO enrollment has occurred in the past five years.

Compared with commercial HMOs in these other states, Minnesota HMOs were near the bottom in average premium revenues in 1995. As Figure 2 shows, though, HMOs' average revenues in those states have stayed flat or even declined since 1995. By 1998, Minnesota was at the high end of these six states. In four of the states, average revenues in 1998 were still below what HMOs in those states collected in 1995. Even in Michigan, where the United Auto Workers and the major automobile manufacturers have negotiated rich benefit packages with minimal enrollee cost-sharing, HMO premium revenues have been flat, and average revenues have fallen below Minnesota's. I believe that the same benefit design changes seen in Minnesota are being widely used in these other states, holding down the premium revenue increases while increasing enrollee cost-sharing.

Why the difference between the premium revenue trend in Minnesota and the trend in those other states? The level of market concentration may explain part of it. For example, just three HMOs dominate the market for commercial HMO enrollees in Minnesota. None of the other markets shown here approaches that level of concentration. As shown in Figure 3, the three largest HMOs in Ohio have less than half the commercial enrollees.

Or compare the concentration in the Minnesota market with that in Colorado. The largest HMOs in Colorado have 64.2 percent of the commercial HMO enrollees. Three years ago, 12 HMOs, including three start-ups, were competing for employers'

business in the Denver area. Even after the dust settles on recent acquisitions, there will still be 10 HMO competitors in that market. You don't need to be a health economist to wonder what the impact would be of having more organizations competing to serve employers in Minnesota.

## Beyond HMOs

Employers are also looking for alternatives to HMOs. In most other markets, PPOs are operated by provider systems and by national insurance carriers, such as CIGNA and Prudential. In Minnesota, a preferred provider arrangement is still likely to involve one of the three largest health plan companies. However, the two dozen or so employers in the Buyers Health Care Action Group (BHCAG) don't do as much business with the health plan companies now, except as operators of competing provider networks.

Once given up for dead, PPOs are enjoying a rebirth. The renewed interest in PPOs stems from several factors. For one, it was always assumed that, through tighter management, HMOs would enjoy a price advantage over PPOs. HMOs have promoted themselves as able to restrain the growth of health care utilization and costs. As employers see a new round of double-digit increases, they are challenging that premise. Many are asking if HMOs really are capable of managing health care more effectively. If not, then why pay the extra premium for the HMO's medical management? Some are returning to PPOs to maintain the benefit of hospital discounts, but without the medical management.

That reaction seems to suit some HMOs just fine. Companies like UnitedHealth Group (which is based in Minnetonka but owns no HMOs in Minnesota) are putting greater emphasis on providing administrative services to employers that will self-fund their health benefit plans. Its recent announcement that it was abandoning large parts of its program of pre-authorization for many services won it enormous public relations points. UnitedHealth Group explained that preauthorization (which will generally be replaced by notifying the health plan) resulted in few denials and did not justify the HMO's expense, not to mention the time spent by physicians and their staff.

But that change may reflect a larger strategy of moving away from traditional HMO products and approaches to containing costs by restraining utilization. In several of its major markets, UnitedHealth Group has reduced its commercial HMO business while growing its PPO and other managed care operations.

For those years when premium increases were low, health issues were largely off the radar screen of employers and the Minnesota Legislature. Even though sharp increases in premiums have gotten their attention again, there appears to be no consensus on what the problem is or how it can be solved. MM

*Allan Baumgarten is an independent health care finance and policy analyst based in Minneapolis and author of* Minnesota Managed Care Review *and market studies for six other states.*

FIGURE 4
Operating Net

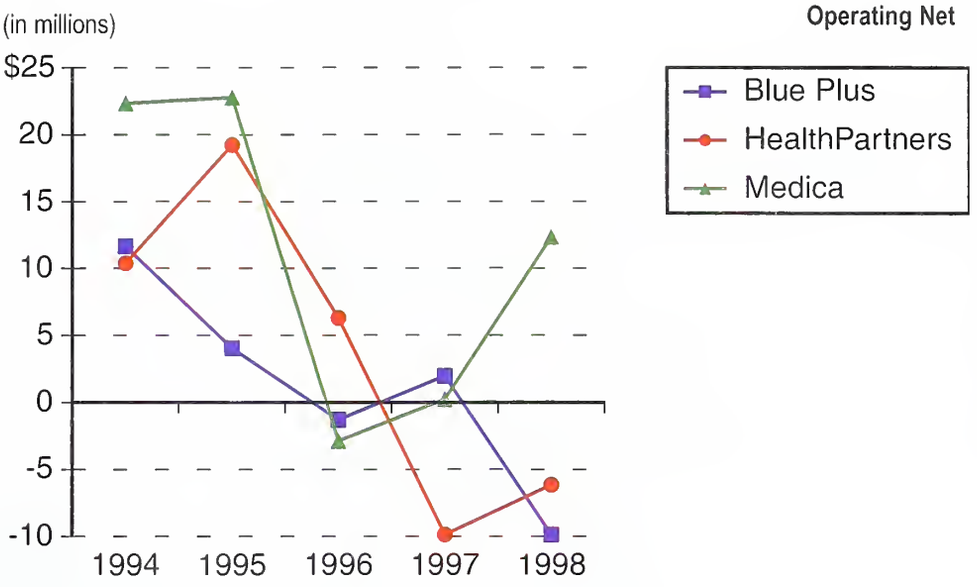
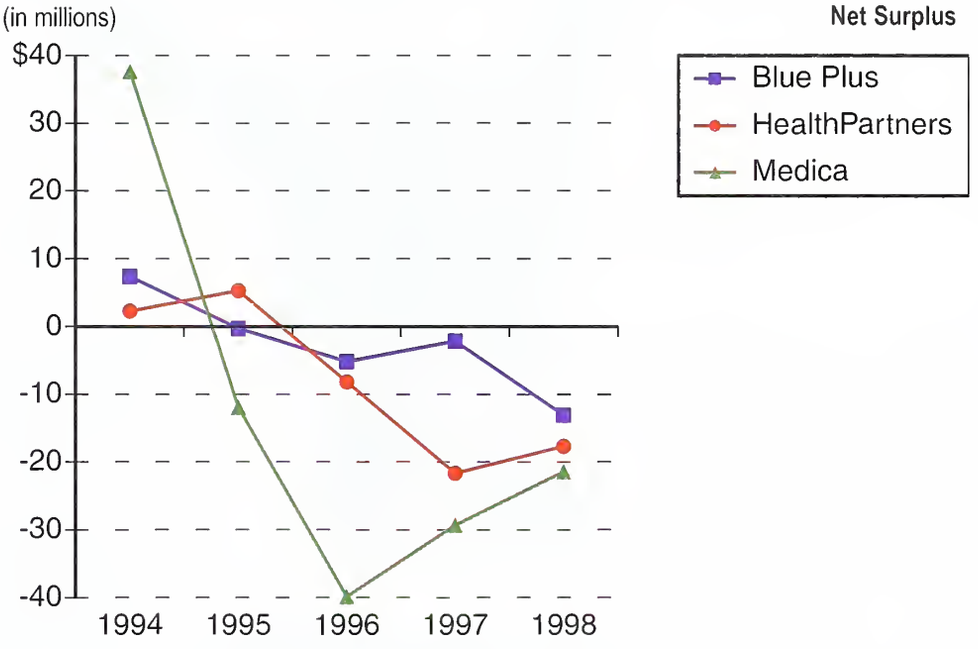



FIGURE 5
Net Surplus




REFERENCE

1. Health Economics Program, Minnesota Department of Health. Health insurance premium trends. Issue Paper, July 1999.

# Health Care Decisions and the



ILLUSTRATION BY TIM LEWIS

By Rebecca Hafner, M.D., M.B.A.

During the past 20 years, an increasingly mobile society, the rapid growth of managed care, and other factors have contributed to the weakening of the physician-patient bond. Once we physicians were considered friend, counselor, and advocate. Now we're too often viewed as adversary.

The new millennium assuredly will bring an exciting array of medical advances and promising new treatments. Many will save lives and inspire hope. But the new era will also feature an aging population and a limitless demand for health care services. Concerns about how patients can continue to receive high-quality, affordable health care will only intensify. How can we work together as a society to address these issues? And, more specifically, what can we physicians do in our roles as patient advocates and stewards of health care resources?

Although Minnesotans continually rank among the healthiest people in the nation, symptoms of a larger malady surround us. Consider:

- The cost of providing health care benefits for state employees increased 23 percent in 1999.
- Small businesses in Minnesota are facing average health insurance premium increases of between 16 percent and 22 percent, according to a recent index compiled by CFG Insurance Services Inc.
- In 1999, Minnesota HMOs reported losing more than $50 million for the third consecutive year, and
- According to the Minnesota Department of Health, overall health care spending in the state from 1993 to 1996 grew faster than such spending in the rest of the nation; health care costs currently consume more than 14 percent of Minnesota's gross state product. (If not for the robust economy, that number likely would be higher, especially as insurance premiums rise sharply.)

If these trends continue, patients' access to the best possible care could be compromised by rising out-of-pocket costs and lack of health insurance. The pressures on employers and the government (the principal payers) will reach a crisis point, putting the health care system in serious jeopardy. Legislators may feel obliged to dedicate an inordinate amount of the state's resources to health care and away from other social investments—which would exacerbate the already fierce competition for limited funds. Finally, patients will want a louder voice in determining how health care resources are spent.

*Medical Alley has launched an ambitious program aimed at involving the community in making decisions about medical procedures and products.*

# Community



To avoid a crisis, health care providers, consumers, insurers, employers, ethicists, and lawmakers must begin working together in an unprecedented fashion. We must begin to ask new questions—not "How much do we want to spend?" but "What can we afford to spend?" Or, put another way, "How can the community best decide where and how to spend its collective pool of health care dollars?" The challenge is to reconcile an unlimited demand for the best health care available with people's desire to pay the least possible amount for it.

## Medical Alley's Health Care Town Hall

With varying success, local health care, business, and community groups have tried to reconcile the conflicting demands on the health care system. But unless we include the broader community, it is really an empty conversation.

That's why Medical Alley, a consortium of local health care interests, has begun a unique attempt to build consensus about the value of new and existing medical procedures and products. "Building a Town Hall for Healthcare Decision Making" kicked off in September with a panel of 24 health care and community leaders. I was asked to co-chair the panel with former state legislator Roger Cooper, who helped shape MinnesotaCare. The panel's first charge is to create a process, credible to all stakeholders, to guide the adoption and use of health care procedures and products.

The scope of the Town Hall initiative makes it the first of its kind in Minnesota and the country. A few years ago, Oregon developed a one-time resource-allocation process focusing on Medicaid only. There, citizens were asked to rank the value of various medical procedures. When resource dollars dropped below a predetermined level, the process was used to help decide which services would be available to Medicaid beneficiaries. Our process, on the other hand, would be ongoing and could influence the availability of health care services for everyone.

Beginning in September 1999, the Town Hall panel set out to clarify our mission and develop a work plan. To guide us, we developed a set of underlying assumptions about values, the health care environment, and the decision-making process (see the sidebar, page 22). If we are successful, over the next 12 to 18 months the panel will develop an approach that combines evidence-based medicine with methods for ascertaining the value the community places on various medical procedures and products.

The potential rewards are well worth the effort. With greater consensus among stakeholders about the value of a particular service or product, physicians may gain support for the use of a new medical procedure. For example, newer, minimally invasive surgical techniques may have higher surgery fees, but result in substantially shorter hospitalizations, more rapid recovery, and a faster return to work for the patient, leading to a lower overall cost to society.

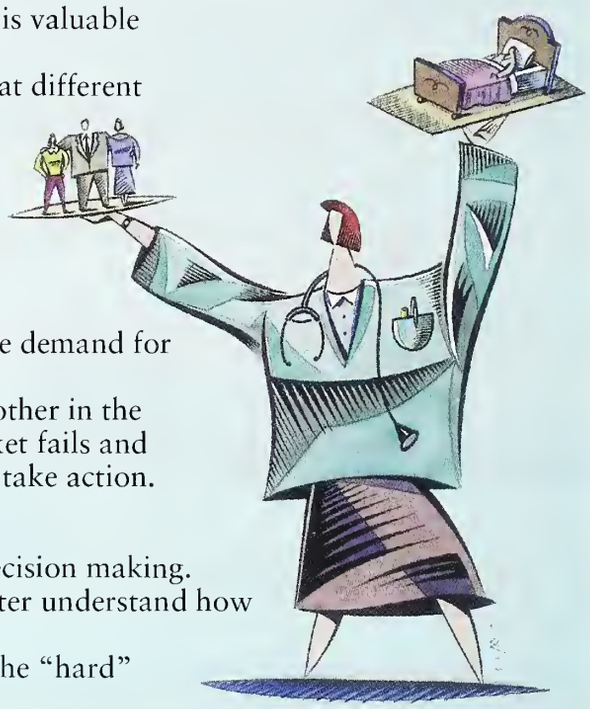
The knowledge gained through the town-hall process could also assist practitioners in explaining to patients whether a service or product is regarded as the best treatment for a particular condition. Patients may be more willing to accept those explanations if they have a voice in the decision-making process.

This process could also empower consumers to manage their health care more actively (a trend already under way) by giving them a better understanding of the costs,

## Health Care Decision-Making Assumptions and Values

*Values*

- Everyone should have access to and coverage for health care. For that to happen, however, there must be limits on what is covered.
- We need a clearly defined process for determining what is valuable in health care.
- All stakeholder groups must be represented to ensure that different values are considered.



*Health care environment*

- The aging population will place significantly greater demands on our health care system.
- Innovative procedures and products will continue to be developed and introduced.
- Lifestyle changes within the population can influence the demand for health care services.
- Consumers, providers, and payers often distrust one another in the context of making health care decisions. When the market fails and perceived inequalities occur, the government is asked to take action.

*Decision-making process*

- Consumers should have expanded responsibilities for decision making.
- Rationing and incentives will be present; we need to better understand how they drive behavior.
- Decisions must be evidence-based, using research from the "hard" and social sciences.

effectiveness, and ethics of various medical procedures and products.

We also hope that this decision-making approach will give patients more timely access to the latest health care innovations. Finally, it is intended to help answer questions that have not been answered using a community consensus approach, such as:

- Which benefits should be part of a health insurance policy?
- When should an individual have to pay for those benefits?
- What is considered an experimental treatment and who should have access to it?

### Preparing for the Future

Some may argue that the market is not ready for this kind of approach to making health care decisions. Most Minnesotans have health insurance, primarily through their employers, that gives them access to a relatively high standard of care. (Hispanic and black populations, however, are two and three times less likely to have insurance, respectively.) But we are not looking at just the next month or the next year. We are preparing for a time when dramatically fewer individuals and employers will be able to afford the cost of care.

The series of public forums initiated by former MMA president Judith Shank, M.D., jointly sponsored by the MMA, the Minnesota Council of Health Plans, and other organizations, can serve as an important source of information on the community's attitudes toward the current health care system. (See "Community Health Forums Bring Together Minnesota's Health Care Players," page 23.) Our panel will attempt to build on that initiative by using the opinions gathered to form a process that will give the community an active voice in shaping health care benefits.

Spending energy negotiating decision-making authority through legislation, the courts, or unions brings only marginal gains. Such efforts further polarize stakeholder groups and make a long-term approach to allocating resources seem like a distant reality.

Few decisions are more personal than health care. However, it is time for physicians and patients to begin acknowledging the societal impact of their personal choices. If the future does indeed belong to those who show up, then we must get involved in these efforts to create a more sustainable health care system for Minnesota, a system that will serve everyone long into the new millennium. **MM**

*Rebecca Hafner is medical director at St. John's Abbey and University in Collegeville, Minnesota, and is chair of the Minnesota Medical Association's Committee on Ethics and Legal Affairs and vice speaker of the House of Delegates.*

# Community Forums Bring Together Minnesota's Health Care Players



ILLUSTRATION BY WHITNEY SHERMAN/ARTVILLE

By Jennifer Thistle

Imagine you're a single parent with two teenage daughters; or perhaps you're married with three children, the youngest battling leukemia; or your husband suffers from a heart condition; or you're perfectly healthy, and happily married, and you've been trying unsuccessfully for two years to get pregnant.

Throughout Minnesota, groups of employers, providers, hospital administrators, public health professionals, consumers, and employees have joined forces to role-play these scenarios as though the individuals all work for the same employer and must come up with one benefits package to meet all those needs.

The Minnesota Medical Association, along with the Minnesota Council of Health Plans, the Minnesota Business Partnership, the Minnesota Chamber of Commerce, and the Minnesota Hospital and Healthcare Partnership, facilitated the groups involved in the role-playing scenarios at community health forums in Duluth, Red Wing, Mankato, the Twin Cities, and Willmar.

The sponsoring organizations had four goals for the forums:

1. Educate purchasers, providers, and patients in local communities about balancing health care expectations with affordability,
2. Inform leaders about key health care issues by sharing the forum results,
3. Stimulate community discussion about these issues, and
4. Seek input from local communities about potential solutions.

"The MMA hopes to see greater awareness from providers and especially from consumers as we look at the challenges of health care and the increase in health care costs. We hope to be asking the right kinds of questions, to find out what the public thinks on some of these issues," says Paul Sanders, M.D., CEO of the MMA. "These forums allow us to find out what is driving the costs and what can be done."

In the role-playing exercise, "employees" are given a set dollar amount for their health care premiums to examine the constraints on health care consumers, both employers and employees. For instance, a single individual would receive $1,896 in medical benefits for a year; of this, the employer would pay $1,476, leaving $420 to be paid by the individual. A family's total amount would be $5,688 for a year, with the employer paying $4,440 and the remaining $1,248 covered by the employee.

"Patients and the general consumer need more education about the rise in medical costs, and to know that the physicians are not making more money as a result of the increases," says David Luehr, M.D., a family practice physician at Raiter Clinic Ltd. in Cloquet, who participated in one of the forums. "In 1999, for instance, in many cases, physician salaries were declining while health care costs were on the rise."

The role-playing employees were also given optional benefits that they could add on to their health benefits package. Each benefit carried a price tag, and everyone in the company had to agree on which benefits to include. In this scenario, the company does not have the option of reducing costs by eliminating coverage of benefits that are already covered. Some employees said they would drop their coverage if their share of the premium increased by more than $10 per month.

> "The forums allow us to include real people in the discussions and find out their thoughts about health care while providing them with a better understanding of the health care system. ... Hopefully, we'll come up with solutions based on the advice from Minnesotans."
>
> –Michael Scandrett, executive director, Minnesota Council of Health Plans



Other options presented to the employee group, which would add from 1 percent to 27 percent to premiums, were:

- **No provider network:** Patients can choose any physician, hospital, clinic, or health care provider at no additional cost.
- **No health plan review of doctors' orders:** The health plan will not review a physician's order for "medical necessity."
- **No health care services excluded from coverage:** Services such as fertility treatment and laser eye surgery will not be excluded.
- **Experimental treatments covered:** Experimental treatments will be covered, if ordered by a doctor.
- **All prescription drugs covered:** Coverage is not limited to generics or to drugs approved by the health plan.
- **Alternative medicine covered:** Alternative treatments such as acupuncture and herbal therapy are covered.

The issues addressed in the community health forums are real dilemmas that decision makers and consumers in Minnesota face. For example, pharmaceutical costs continue to rise, in part because of direct-to-consumer advertising, which leads patients to request prescriptions for particular drugs.

As the "employees" viewed their benefits options, they had to weigh cost against quality and choice. Balancing these factors has become a challenge for everyone in the health care industry—consumers are demanding the best quality and more choice, but they don't want to pay more. According to the Bureau of Labor Statistics, the average American family doles out 10.7 percent of its after-tax income for entertainment, including dining out, but only 5.3 percent of income is spent on health care.

"Consumers today are more demanding and much more knowledgeable. They use the Internet to access information," says former MMA president Judith Shank, M.D., a dermatologist at Metropolitan Dermatology in Plymouth. "It's getting harder and harder to meet patient expectations."

Shank believes that stakeholders and the public must be given accurate information about the challenges and problems facing the health care industry, including increasing costs, an aging population, financial losses by facilities and physicians, and the potential decrease in health care access.

According to a recent *Health Care Brief* from the Minnesota Council of Health Plans (MCHP), as health plan premiums rise—in part because of coverage for more and better medical care—health insurance may become unaffordable for some individuals and employers. With every 1 percent increase in premiums, 2,000 to 4,000 Minnesotans lose their health care coverage.

"Everyone is concerned about health care costs, and there's worry that coverage may become unaffordable," says Michael Scandrett, executive director of the MCHP. "We need to take these issues seriously. The forums allow us to include real people in the discussions and find out their thoughts about health care while providing them with a better understanding of the health care system. ... Hopefully, we'll come up with solutions based on the advice from Minnesotans."

The MMA has been in the forefront for the past decade in looking at ways to expand medical benefits to a wider population. It formed a task force in 1990 and reconvened it in 1993, both times to work on defining a standard benefits package for medical services.

In 1993, the Minnesota Legislature called for the development of a standard benefits package that would provide "appropriate and necessary" health services—services that are needed to maintain good health, including, but not limited to, emergency care, inpatient hospital and physician care, outpatient health services, and preventive health services. A legislative committee was unable to reach consensus on the package, however.

Nevertheless, many patients, particularly those enrolled in HMOs, are guaranteed certain benefits in Minnesota. Some of these are:

- Routine screening for cancer, including mammograms and pap smears;
- Preventive services, including health education, health supervision, immunization, and early disease detection;
- Inpatient mental health care for at least 30 days of treatment each year for mental and emotional conditions;
- A 48-hour hospital stay for mothers after childbirth;
- Coverage for protheses worn for hair loss suffered as a result of alopecia areata; and
- Expenses for correcting cleft lip and cleft palate, up to age 18, including orthodontic and oral surgery treatment.

"There are tradeoffs in health care," Shank says. "We have to make decisions regarding benefits, procedures, health care availability, and cost. As physicians, we want the best for our patients, and, like our patients, we want it all. We must come to the understanding that we cannot continue to provide more and more health care without deciding how much is enough and who will be responsible for the expense. All players need to be involved: patients, employers, insurers, politicians, and most of all, physicians."

Participants said the forums have helped them realize the complexity of selecting a standardized benefits package for one employer group. Likewise, the sponsoring organizations decided they must continue to raise public awareness and provide education about the difficulties in developing health care packages that work for everyone. This information needs to be shared with all Minnesotans, including legislators.

The forums' goals of educating purchasers, providers, and patients; informing leaders; stimulating community discussion; and seeking input from local communities about the health care system are all steps toward achieving high-quality, affordable health care in Minnesota.

Nonetheless, according to Shank, there is still work to do: "We can no longer allow others to form the debate. Physicians must bring their considerable intellectual talent, judgment, and experience to the table. We cannot be too busy or too uninterested." MM

*Jennifer Thistle is MMA outreach field representative.*


## STAFF PSYCHIATRIST

An excellent opportunity exists for a Board Certified or Board Eligible Psychiatrist for a full-time position at the St. Cloud Veterans Administration Medical Center, St. Cloud, Minnesota. The physician will provide primary mental health delivery service to a veteran population with long-term mental illness. The incumbent will work in the St. Cloud Medical Center three days per week and travel two days per week to work at the community-based outreach clinics.

We offer competitive salary and benefits along with a stable 40-hour weekly schedule for physicians. Applicants must be permanent residents or U.S. citizens. To explore these opportunities, call or write Patricia Hilsgen, Human Resource Office at 320-255-6412 or Clay King, Mental Health Services, at 320-255-6480 ext 6541.

**VA Medical Center**
**4801 8th Street North**
**St. Cloud, MN 56303**

The Department of Veterans Affairs is an equal opportunity employer.

# Is the Experimental Treatment Exclusion Used Appropriately

*At health care forums sponsored by the Minnesota Council of Health Plans, stakeholders in Minnesota's health care system expressed concerns about the way coverage policy decisions are made, particularly for experimental interventions.*

By Reinhard Priester, J.D.

Even as managed care has become the dominant model for health care delivery and financing in the United States, it has lost the trust of its stakeholders and the public at large. This climate of distrust, which affects health plans nationwide, stems largely from the decisions health plans must make to allocate finite health care resources. Coverage policy decisions (in this article, defined as decisions that establish a health plan's benefits package) are among the least understood and most controversial in health care. Coverage decisions, particularly those affecting experimental interventions, have become a lightning rod for disagreements between health plans and patients and their clinicians. Health plans have customarily excluded coverage for experimental interventions through the "experimental treatment exclusion."

## What Makes an Intervention 'Experimental'?

The experimental treatment exclusion, a component of most health plan contracts, has traditionally been used to exclude coverage for interventions that have not been shown to be safe and effective. A key question for health plan decision makers has been to determine if an intervention meets the criteria for "experimental." Although there is no consensus among health plans on the criteria, by far the most widely used are those developed by the Technology Evaluation Center (TEC), a program of the national Blue Cross and Blue Shield Association. The TEC program considers an intervention "experimental" if it does not meet all five of these criteria:

1. The intervention must have final approval from the appropriate governmental regulatory body (e.g., the FDA).
2. The scientific evidence must permit conclusions about the effect of the intervention on health outcomes.
3. The intervention must improve health outcomes.
4. The intervention must be as beneficial as any established alternatives.
5. The improvement must be attainable outside the investigative settings.[1]

Traditionally, an intervention's experimental status has been closely linked to its coverage. A health plan usually does not cover an intervention it considers experimental (i.e., an intervention that fails to meet one or more of the exclusion criteria); conversely, a health plan almost always covers an intervention that meets all five criteria. Some exceptions include off-label use of drugs (usually covered, though experimental), cosmetic interventions (usually not covered, even if they are not experimental), and "compassionate use" exceptions on behalf of a patient in extraordinary circumstances.

## Forums on Coverage Decisions

In 1997–98, the Minnesota Council of Health Plans (MCHP) sponsored a series of six forums examining the ethical and policy dimensions of coverage decisions for experimental interventions. Fifty-five health care stakeholders from Minnesota, including health plan enrollees, purchasers, clinicians, legislators, and regulators, attended the six forums. For five of the forums, participants were invited for their particular expertise and perspective; the sixth was attended by 12 randomly selected Minnesota voters.

The half-day forums used a role-playing exercise to acquaint managed care stakeholders with how coverage decisions are currently made and to obtain their input on the values and ethical principles that should guide such decisions. In the exercise, participants were asked to act as health plan decision makers and make recommendations on a number of coverage decisions facing a fictitious health plan.

The forums used case studies to generate discussion of the relevant policy and ethical concerns. The issues raised were strikingly similar across all six forums.[2] A common theme was that the experimental treatment exclusion might not be up to the task for which it is employed. Participants' major concerns about the exclusion are discussed below.

*The exclusion ignores cost-effectiveness data*

The experimental treatment exclusion was originally designed to protect health plan enrollees from unsafe or ineffective interventions. Historically, cost considerations have not played a role in determining whether an intervention is experimental. In fact, once an intervention crosses the threshold from experimental to accepted medical practice, it is almost always covered, regardless of cost. Yet participants in all the forums agreed that in today's environment, health plans must take an intervention's cost and cost-effectiveness into account in making coverage decisions. The scarcity of health care resources makes this consideration necessary.

> Participants agreed that health plans must take an intervention's cost and cost-effectiveness into account in coverage decisions.

While the supply of new health care interventions continues to rise, there is no natural limit on demand for health care services. Therefore, no health plan can pay for every intervention that might have benefit. When resources are finite, coverage policies must promote the efficient use of those resources. Greater efficiency can be achieved only if health plans consider an intervention's cost-effectiveness. Otherwise, as one author writes, "The effect will be to force [health plans] to cover interventions that have any benefit, no matter how small, at any cost, no matter how large."[3]

*The evidenced-based exclusion is too narrow*

Forum participants expressed the view that the experimental treatment exclusion does not capture all criteria relevant to coverage decisions. In their view, coverage decisions should not follow automatically from conclusions about whether an intervention is experimental. Evaluating whether an intervention meets the experimental treatment exclusion criteria is distinguishable from deciding whether or not to pay for the intervention. The former is a relatively objective, evidence-based evaluation of information regarding the intervention's safety and effectiveness. The latter is fundamentally a judgment about whether the intervention is of sufficient value to warrant paying for it.[4] This judgment requires normative input, such as information about patients' values and health care priorities, a definition of a fair and efficient use of resources, and a balancing of population needs with individual interests. Thus, reasoned and defensible coverage decisions require more than just technical or scientific information.

Consider the following example from a 1994 report on thrombolytic therapy for acute myocardial infarction by the Health Technology Assessment Committee (HTAC), an advisory body that evaluates new and emerging technologies in Minnesota (see related profile, page 6). Based on a $2,000 difference between the cost of t-PA and streptokinase, the report concluded that routinely using t-PA would reduce mortality at a cost of approximately $200,000 per additional life saved. Approximately 35 more lives would be saved annually in Minnesota at an additional total cost of approximately $7 million.[5] These conclusions, grounded in science and economics, cannot tell us whether a health plan should cover t-PA instead of streptokinase. No amount of factual information can tell us whether the lower mortality rate is worth the additional cost. That determination requires a value judgment.

## Beyond the Experimental Treatment Exclusion

Although the forum participants agreed that the experimental treatment exclusion by itself provides insufficient guidance for making coverage decisions for new interventions, they did not provide answers to the questions about the value judgments involved in making sound coverage decisions. Nevertheless, the forum discussions suggest several features of a possible approach to answering these questions.

First, the approach should be broadly participatory. Discussions involving all stakeholders can help generate agreement on health care priorities, tradeoffs, and how to use shared health care resources to best promote health. Most importantly, patients should be involved in the discussions.

Such discussions could take place at a health plan level, the state or regional level, or the national level. For example, an Oregon initiative in the early 1990s solicited statewide input on health care priorities to help restructure the Medicaid program and other elements of the state's health care system. Determining the appropriate arena for discussion involves balancing several goals. State or regional discussions might engender uniform coverage decisions over a large population, for instance, whereas discussions at the health plan level could lead to decisions that directly reflect the particular values and priorities of that plan's enrollees.

Finally, the approach must seek to integrate efficien-

cy with other core values that shape our health care system. Discussions about coverage of new health care interventions cannot ignore resource constraints. Because our resources are finite, we must set limits to determine which health care services we are willing and able to pay for.

## Conclusion

The experimental treatment exclusion is at the core of much of the confusion about and distrust of health plan decision making. How the exclusion is used for coverage policy decisions is unclear to many health plan stakeholders. Participants at the MCHP forums recognized that, while sound scientific and clinical data are essential, coverage policy decisions require additional, nonscientific input as well. Clinical evidence, cost-effectiveness data, and normative or value-based factors should all be considered in establishing coverage policies. Although evaluating an intervention according to the experimental treatment exclusion criteria is key to making a coverage policy decision, such an evaluation should not by itself dictate a health plan's decision about whether to cover the intervention. The experimental treatment exclusion should instead serve as only one source of input for health plans to use in making reasoned and defensible coverage policy decisions. MM

*Reinhard Priester is an independent consultant in health policy and bioethics. This article is based on work performed for the Minnesota Council of Health Plans in conjunction with its project EQUIP.*

*Funding for the forums discussed in this article was provided by the Minnesota Council of Health Plans. The author wishes to thank Michael Scandrett, executive director of the MCHP, and Karen Gervais, director of the Minnesota Center for Health Care Ethics, for their significant contributions to the forums and the ideas discussed in this article. However, neither they nor the MCHP and MCHCE necessarily share the author's views.*

### REFERENCES

1. Gleeson S. Blue Cross and Blue Shield Association initiatives in technology assessment. In: Gelijns A, Dawkins HV, eds. Adopting new medical technology, Vol. IV. Washington, D.C.: National Academy Press, 1994.
2. Priester R, Gervais K. A role-playing exercise in managed care decision making: coverage for experimental interventions. Minneapolis: Center for Health Care Ethics, 1999.
3. Eddy DM. Benefit language: criteria that will improve quality while reducing costs. JAMA 1996;275(8):650-7.
4. Priester R, Gervais KG, Vawter DE. A model for improving coverage policy decisions. Am J Managed Care 1999:5(8):91-102.
5. Health Technology Advisory Committee. Technology evaluation report: thrombolytic therapy for acute myocardial infarction. St. Paul: HTAC, May 1994.

North Memorial Health Care®
*An Organization of Health Care Professionals*

*North Memorial is an independent, full-service facility located in the northwest Twin Cities with more than 700 physicians in more than 40 specialties. We are known as the trauma center in the region with other notable programs including the Hubert H. Humphrey Cancer Center, North Heart Center, North Rehabilitation Center, and the Women's and Children's Center. We also strongly promote physician practice opportunities within our associated clinics, including those that are independently owned, joint ventures and hospital owned. Which means you can choose from large or small and multi or single specialty practice options in metro, suburban or rural locations. North Memorial offers very competitive salaries and excellent fringe benefits. Sounds like the perfect job, doesn't it?*

***Positions now available for BE/BC physicians in:***

- **Family Practice**
- **OB/GYN**
- **Internal Medicine**
- **Gastroenterology**
- **Hematology/Oncology**
- **Emergency Medicine**
- **Pediatrics**
- **Maternal Fetal Medicine**
- **Urgent Care**

For consideration to be a part of our team please mail, fax, or e-mail cover letter and C.V. to:

Mark A. Peterson, Physician Recruiter
North Memorial Health Care
3300 Oakdale Avenue North
Robbinsdale, MN 55422
Phone: (800) 275-4790 or (612) 520-1336
Fax: (612) 520-5997
E-mail: mark.peterson@northmemorial.com

# Pediatrics: A Century of Caring

*From milk stations to gene mapping, pediatric medicine has championed the health of our children.*

Charles N. Oberg, M.D., M.P.H., and Diana Becker Cutts, M.D.

Highlighting only a few of the pediatric triumphs of the 20th century is difficult, considering the extraordinary evolution of medicine in the past 100 years. Looking ahead is an even more daunting task. However, the start of the new millennium seems an appropriate time to reflect on the specialty of pediatrics past, present, and future.

At the turn of the century, there were about a half dozen medical practitioners devoted to the care of children. Today, the American Academy of Pediatrics has more than 55,000 physician members. The infant mortality rate in 1900 was 200/1,000, compared with the current 7.1/1,000.[1] We owe a great debt to the many allied fields that contributed to the pediatric successes of the past century. Our colleagues in obstetrics, public health, infectious disease, immunology, surgery, family medicine, and other related health and social sciences have played essential roles in the evolution of pediatrics.

Although pediatrics is a relatively new specialty, the care of sick children dates back to antiquity. Hippocrates and Aristotle each spoke of the health care needs of infants and children and how they differed from those of adults.[2] However, the end of the 19th century marked an epiphany in medicine: the recognition that children deserved a cadre of professionals dedicated to their care,



HENNEPIN COUNTY MEDICAL CENTER HISTORICAL MUSEUM

professionals who would advocate for and protect children who could not speak for themselves.

Dr. Abraham Jacobi is considered by many the "father of pediatrics" in the United States. In 1859, he published "Midwifery and Diseases of Women and Children." In addition, he was the first professor of pediatrics in America, at New York Medical College, and in 1860 he established the first free pediatric clinic in our country.[3]

## 1900–1920

### *Pediatric Dispensaries and Milk Stations*

Jacobi was one of the pediatric pioneers who understood the link between environment and disease. The emergence of the Industrial Revolution in the 19th century led to urbanization and, as the 20th century began, a dismal state of public hygiene. This coincided with the "Great Wave of Immigration," a time when more than 25 million immigrants from Southern and Eastern Europe passed through Ellis Island.[4] One in five newborns did not survive to age 5, succumbing frequently to infantile diarrheal diseases caused by contaminated milk. Pasteurization and bottled milk did not become regularly available until the 1920s, nor mechanical refrigeration until the 1930s.[4] In conjunction with public health professionals, pediatricians established urban pediatric dispensaries and milk stations that served boiled milk to impoverished children. Infant nutrition and the biochemical composition of human and bovine milk constituted a prominent topic of pediatric investigation in the first two decades of the 20th century. In addition to significantly decreasing infant deaths, this research established the pathophysiology of such nutritional diseases as rickets, scurvy,



MINNESOTA HISTORICAL SOCIETY

*Young patients pose with their dolls at Lymanhurst Hospital Cardiac Clinic in Minneapolis, 1937.*

pellagra, and beriberi. The focus on prevention and addressing the needs of impoverished children would become a cornerstone of pediatric practice throughout the rest of the century.

## 1920–1940

### *Penicillin, Streptococcus, and the Triumph over Rheumatic Fever*

The next 20 years witnessed the birth of antibiotics and the full-scale offensive to conquer diseases caused by infectious agents. The concept of bacteriology and microorganisms dates to the end of the 19th century and the work of Louis Pasteur and Robert Koch. Alexander Fleming, a Scottish bacteriologist from St. Mary's Hospital in London, discovered penicillin in 1928, an event that launched the pharmaceutical war against disease. He demonstrated its effectiveness against *Streptococci* in 1940.[5] By the early 1940s, penicillin was in mass production and proved highly effective against most purulent infections, such as pneumococcus, meningococcus, diphtheria, anthrax, tetanus, and syphilis.

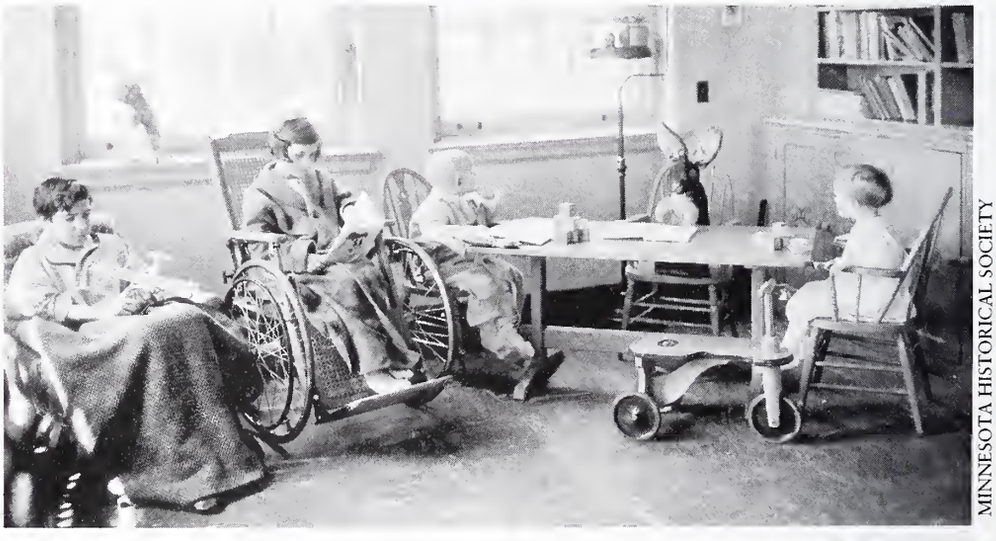
Also during this time, a growing number of physicians and scientists were developing an understanding of *Streptococci's* role not only in the acute illness of many children, but also in post-acute rheumatic fever and rheumatic heart disease. The symptomatic constellation of fever, carditis, arthritis, chorea, and subcutaneous nodules was a clinical enigma. However, it became apparent that adequate treatment for *Streptococci* not only cured acute pharyngitis but also prevented rheumatic fever. The incidence of rheumatic fever actually decreased even before the widespread use of antibiotic treatment. This decrease was most likely due to improved nutrition in children and a change in the serology and virulence of *Streptococci* in the United States.[6] However, the importance of penicillin in reducing acquired rheumatic heart disease and its most frequent complication, mitral value stenosis, is undisputed. But triumph is often short-lived. Rheumatic fever continues to be a major disease globally and had a resurgence in the United States in the 1990s.

## 1940–1960

### *Salk, Sabin, and the Irradication of Polio*

Poliomyelitis, the plague of the 20th century, still evokes fear in those who raised families after World War II. Though not as deadly as the global influenza epidemic of 1918, poliomyelitis was dreaded by physicians and parents of the early baby boom generation. Recurrent summer outbreaks in the United States resulted in as many as 55,000 cases a year, affecting mostly children.

Michael Underwood first described poliomyelitis in 1789 in "A Treatise on the Diseases of Children," under the topic "debility of the lower extremities." Jean Martin Charot and Alexis Joffroy in 1869 identified the anterior horn cell of the spinal cord as the location of the injury, and Oscar Medin of Stockholm in 1890 speculated on its origin as a contagious infectious disease.[7] Franklin Delano Roosevelt contracted paralytic polio in 1921, and through his efforts in the White House established the National Foundation for Infantile Paralysis and its annual March of Dimes campaign, which increased funding for research and treatment. Minnesota took center stage in the debate over polio treat-



MINNESOTA HISTORICAL SOCIETY

*Teatime at Children's Hospital in St. Paul, 1932.*

ment in the mid-1930s when Elizabeth Kenny established Sister Kenny Institute in Minneapolis to use her physical therapy techniques with affected children.

Between 1940 and 1960, pediatrics focused on the development of a vaccine and the ultimate prevention of polio. In 1953, Jonas Salk of the University of Pittsburgh issued a preliminary report on the efficacy of an inactivated polio vaccine (IPV). Amid scientific debate over a live vs. a killed virus vaccine, a highly publicized immunization campaign resulted in a million schoolchildren receiving Salk's vaccine between April and May 1955. The year before the vaccine was made available, 55,000 cases of paralytic poliomyelitis were reported in the United States. Three years later, there were fewer than 200.[8]




CENTER FOR THE STUDY OF THE HISTORY OF NURSING, SCHOOL OF NURSING, UNIVERSITY OF PENNSYLVANIA

*Milk stations provided a clean, safe haven for babies and children at the turn of the century.*

In 1961, the first live attenuated virus vaccine originally developed by Dr. Albert Sabin was licensed for use. A shift occurred toward this oral polio vaccine (OPV), which consisted of the traditional four doses. In the United States, the last community-acquired wild-type polio case occurred in 1978. Because of the risk of contracting the disease faced by those who received OPV and/or their immunosuppressed contacts, the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices and the American Academy of Pediatrics have advised returning to the use of IPV for at least part of the series.[9]

We cannot leave this period without mentioning Dr. Benjamin Spock's book, "Baby and Child Care," first published in 1946. Reprinted more than 175 times and translated into 39 languages, this "parents' bible" has sold more than 40 million copies.

## 1960–1980

### *PKU, Neonatal Hypothyroidism, and the Screening for Congenital Disorders*

The adoption of mass newborn screening tests for congenital disorders that could cause death or severe irreversible damage highlights 1960 to 1980. The goal was to identify biochemical abnormalities that signaled the presence of disease in asymptomatic infants, in whom early treatment could prevent the consequences of the disease. This elegant approach has proven beneficial both clinically and economically.

Phenylketonuria (PKU) is an inherited disorder of metabolism of the amino acid phenylalanine that, if untreated, can cause severe mental retardation. The disease occurs in 1 in 10,000 to 1 in 15,000 infants. Large-scale screening was initiated in 1961. Screening for congenital hypothyroidism to prevent cretinism was soon added. By 1980, all 50 states and the District of Columbia were screening for these two inborn errors. The U.S. Office of Technology Assessment conducted a cost-benefit analysis of newborn screening in 1987, concluding that an optimal screening program for PKU and congenital hypothyroidism alone would result in net health care savings of $3.2 million per 100,000 infants screened.[10]

The United States has no national screening program. Rather, each state decides which disease entities to screen. In addition to PKU and congenital hypothyroidism, states to varying degrees screen for galactosemia, maple syrup urine disease, homocystinuria, biotinidase deficiency, and congenital adrenal hyperplasia. More recently, screening for diseases for which prevention is not available, such as cystic fibrosis, HIV infection, and hemoglobinopathies, has become available.

The ethics of screening for diseases without a known cure has been actively debated. Some states have chosen to screen selectively for such disorders in an attempt to minimize disease and ameliorate complications through identification. The effort to advance beyond the conquest of acute disease and to actively pursue the identification, treatment, and prevention of chronic diseases of children is an important milestone in pediatrics.

## 1980–2000

### *The Victory over* Haemophilus Influenzae *Type B*

To identify one accomplishment as the most important in the last 20 years of the 20th century would slight many other significant achievements. However, in clinical pediatrics, no greater change has occurred than the victory over *Haemophilus influenzae* type B (Hib). This small, pleomorphic, Gram-negative coccobacilli caused numerous deaths and

disabilities in children over the century. Meningitis, otitis media, sinusitis, epligottitis, septic arthritis, pneumonia, and pericarditis are but a few of the many illnesses this organism could cause in an infant or child. Before the introduction of an effective vaccine, *Haemophilus influenzae* type B was the most common cause of bacterial meningitis in children in the United States and in most of the developing world. Since the introduction of the Hib conjugated vaccine in 1988, the incidence of invasive infections for infants and young children has been reduced by 95%. As with polio, few medical students and pediatric residents will encounter a case of *Haemophilus influenzae* type B during training. The U.S. Public Health Service has targeted Hib irradication in the United States for children younger than 5 years old.[11]

## Epilogue
### *What the New Millennium Holds for Pediatrics*

The millennium will bring continued change in pediatrics. The past successes have foreshadowed our new challenges. For one, the emergence of multiple drug–resistant organisms is a crisis that will need to be answered. The recent identification of four pediatric cases of community-acquired methicillin-resistant *Staphylococcus aureus* (MRSA) in the Midwest is ominous and just as worrisome as any contagious infection we have dealt with previously.[12] MRSA will require not only a change in how antibiotics are used, but also an expectation that new and improved chemotherapeutic agents will be developed.

The move to electronic medical records and the explosive growth of new information systems and technologies will alter how we evaluate, document, and care for patients. We must teach our new graduates that these are but tools to be used as adjuncts in the art, science, and practice of medicine.

A discussion of pediatrics and the millennium must also include the recent spectacular advances in molecular genetics. The Human Genome Project will open a world only recently contemplated by clinicians. The ability to not only identify but also genetically correct the inborn errors of pediatric diseases such as cystic fibrosis and sickle cell anemia will greatly benefit society.[13]

In his remarks to the American Pediatric Society in 1923, L.E. Holt Sr. said, "If you today have a broader vision of your science than the men of 25 years ago, it is not because your sight is better but because you stand upon their shoulders." Our sight may be better because of the technologies that open up unimagined vistas, and our scientific ranks most certainly include both genders, but Holt's wisdom rings true nonetheless.[14] Finally, the goal of pediatrics today, as always, is the improved health and well-being of our children. MM

*Charles Oberg is chief of pediatrics and Diana Becker Cutts is director of research and advocacy at Hennepin County Medical Center.*

REFERENCES

1. Guyer BG, MacDorman MF, Martin JA, Peters KD, Strobino DM. Annual summary of vital statistics—1997. Pediatrics 1998,102;1333.
2. Bloch H. History of pediatrics—part 1. South Med J, 1992,85;1231-5.
3. Haggerty RJ. Abraham Jacobi, M.D., respectable rebel. Pediatrics 1997:99; 462-6.
4. Markel H. Caring for the foreign born—the health of immigrant children in the United States, 1890–1925. Arch Pediatr Adolesc Med 1998;152:1020-7.
5. Porter R. The greatest benefit to mankind—a medical history of humanity. New York: W.W. Norton & Co., 1997;455.
6. Jones TD, Bland EF. The natural history of rheumatic fever. In: Thomas L, ed. Rheumatic fever—a symposium. Minneapolis: University of Minnesota Press, 1952;6.
7. Singer C, Underwood EA. A short history of medicine. New York & Oxford: Oxford University Press, 1962, 272.
8. Lehman D, Liberman JM. Polio vaccines—time for a change. Contemp Pediatr 1998;15:58-74.
9. American Academy of Pediatrics Committee on Infectious Diseases. Recommended childhood immunization schedule—United States, January-December 1999. Pediatrics 1999;103:182-3.
10. U.S. Congress Office of Technology Assessment. Healthy children—investing in the future. Washington, D.C.: Government Printing Office; Assessment OTA-H-345, February 1988;110.
11. 1997 Redbook, 24th ed.—Report of the Committee on Infectious Diseases. Elk Grove Village, IL: American Academy of Pediatrics, 1997:221.
12. Four pediatric deaths from community-acquired methicillin-resistant *Staphylococcus aureus*—Minnesota and North Dakota, 1997–1999. MMWR 1999;48 (32):707-10.
13. Gregg JP, Grody WW. Diagnostic molecular genetics—current applications and future technologies. Pediatr Ann 1997; 22:553-61.
14. Cone TE. Highlights of two centuries of American pediatrics, 1776–1976. Am J Dis Child, 1976;130:762-75.

*Look for our continuing series about milestones in various medical specialties in future issues. We welcome your comments and suggestions, mm@mnmed.org*

**Minnesota Opportunities**

Delacore Resources, also known as *"The Minnesota Recruiter,"* has opportunities in Minnesota for the following types of physicians:

- **Dermatology**
- **Emergency Medicine**
- **Family Practice**
- **General Surgery**
- **Internal Medicine**
- **OB/GYN**
- **Orthopedic Surgery**
- **Pediatrics**
- **Psychiatry**

A detailed practice profile is available, or visit our website at **www.mnrecruiter.com**

*Contact The Minnesota Recruiter confidentially at*

**Delacore Resources**
**1-800-967-2711**
**FAX (320) 587-7252**
**delacore@hutchtel.net**

# NEWS VIEWS

## ANNOUNCEMENTS



### Code Season Arrives in Metro Area

On February 27, 2000, the Minneapolis metropolitan region now served by the 612 area code will be split into three different area codes: 612, 763, and 952. Minneapolis, Richfield, St. Anthony, and the Fort Snelling area will keep the 612 area code. The boundary separating the 763 and 952 area codes approximately follows Interstate 394. Most communities north of I-394 and to the north and northwest of Minneapolis will have the 763 area code. Communities south of I-394 and to the south and southwest of Minneapolis will have the 952 area code.

Mandatory use of the new area codes and 10-digit dialing for local calls between area codes in the Twin Cities metro area will begin on January 14, 2001.

Additional information is available at the following Web sites: www.mnta.org or www.uswest.com/area codes.

# Revenue Department Addresses Health Care Tax Reform

On December 17, two representatives of the Minnesota Medical Association, Paul Sanders, M.D., CEO, and David Renner, director of state and federal legislation, attended the first of a series of forums the Department of Revenue is holding to address health care tax reform. The forums allow individuals and organizations to give input to the Revenue Department as it implements Gov. Jesse Ventura's "Big Plan" reforms.

The Minnesota Medical Association is a member of the Coalition for Replacing the Provider Tax, which believes that a broad-based funding source for MinnesotaCare is more equitable than a "sick tax," which falls most heavily on the state's ill and lower-income citizens.

"We intend to actively participate in these forums to ensure the Revenue Department is well aware of the inappropriateness of the sick tax," said Sanders. "If the governor is committed to funding health care based on sound policy principles, then he should soon realize that the sick tax needs to be replaced."

The forums will examine all health care taxes in Minnesota, including the provider tax, MCHA assessments, the gross premiums tax, and medical assistance surcharges. Department of Revenue health care tax reform team leaders George Hoyum and Keith Getschel chaired the presentation and discussion.

*ASSESSMENTS continued on page 35*

## Minnesota's Health Care Taxes

**Provider Tax**
This tax of 1.5 percent on the revenues of patient services performed by health care providers and hospitals and wholesale drug distributors' sales of prescription drugs goes into the health care access fund.

**Hospital Surcharge**
This tax of 1.56 percent on the net revenues of each Minnesota hospital goes into the general fund.

**Nursing Home Surcharge**
Each nursing home in Minnesota is required to pay an annual tax of $625 per licensed bed. This tax is deposited into the general fund.

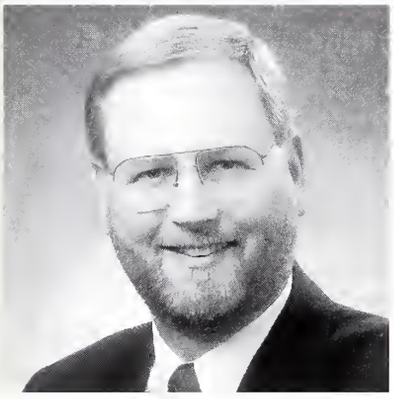
**Health Maintenance Organization and Integrated Service Network Surcharge**
This tax of .6 percent of the total premium revenues goes into the general fund.

**Gross Premiums Tax**
This tax of 1 percent of the premiums received by nonprofit health plans, HMOs, and ISNs goes into the health care access fund. This tax is not currently being assessed.

**Minnesota Comprehensive Health Association (MCHA)**
MCHA provides health insurance for individuals who have been denied coverage because of preexisting conditions. Each insurer writing health coverage, HMOs, ISNs, and fraternal benefit societies offering health care coverage are, by law, members of the association. To the extent that program expenses exceed enrollees' premium payment, the members are assessed for the shortfall.

# VIEWPOINT

*John M. Van Etta, M.D.*
*MMA President*



## Organized Medicine's Future Looks Bright

The year 2000 is here, and after three months as MMA president, I am more optimistic about medicine in the new millennium than ever. I recently returned from the AMA Interim Meeting, where we met with medical students from Minnesota who were attending the meeting. I was pleasantly surprised when more than 20 Minnesota students came to the North Central Medical Conference reception. These students are committed to organized medicine and are encouraging their colleagues to become involved as well. At the reception, they met the North Central Medical Conference AMA delegation and exchanged ideas about some of the issues facing physicians in our region and throughout the country.

The biggest growth in AMA membership is occurring among students, residents, and physicians who are returning to AMA membership after years of lapsed membership. In Minnesota, more than 5,800 physicians are members of the AMA. Are we seeing a change in attitude toward physician involvement in organized medicine? I am optimistic that we are. Congratulations to those students and residents who have joined us.

Physician involvement is important at both the national and state levels. Our Minnesota delegation influenced AMA policy on a wide range of issues, including the regulation of dietary supplements and herbal remedies, growing pharmaceutical costs, Medicare coverage of preoperative examinations, standards of health care in correctional settings, the danger posed by sleep-deprived drivers, the impact of railroad traffic on emergency access to hospitals, and promotion of domestic violence awareness. Our Minnesota resolutions were warmly received by the AMA House of Delegates and will have an impact on national health care policy.

At the state level, physician involvement is even more critical. After serving on the MMA Committee on Legislation for eight years, I know how important it is for physicians to talk with their local politicians about health care issues. If we are not involved, believe me, others will be and they will not necessarily be looking out for the best interests of patients or the community. Nothing is more powerful than having a legislator's personal physician testify, raise money, or volunteer for a political campaign.

Contributing to MEDPAC and participating in political campaigns are ways to make sure your voice is heard. In the year 2000, Minnesota will elect a new state Senate and House of Representatives and a U.S. senator and representative. The decisions made in this first year of the new millennium will have an impact for years to come. We can help make sure the right decisions are made.

The MMA makes it easy for you to become involved in grassroots efforts to affect health care policy. Please come to the MMA Legislative Summit on January 23 and learn how to become a player in the legislative process. Following the constituent skills workshop and an update on what to expect during the legislative session, you will hear Rep. Tim Pawlenty, the House Majority Leader, discuss health care issues from a legislator's point of view. This is a wonderful opportunity to learn how to frame the political discussion and make the future one to be proud of.

We all—physicians, medical students, and residents—are involved in organized medicine and in grassroots efforts because we care about the future of our profession.

*ASSESSMENTS from page 33*

Jim Schowalter from the Department of Finance talked about the Health Care Access Fund (HCAF), for which the provider tax is the main source of income. Sanders and Renner inquired about a $150 million reserve fund under which HCFA operates while continuing to collect health care taxes. Schowalter explained that the reserve fund was established to manage risk of federal Medicaid cuts that are no longer a threat. He agreed that the matter needed review.

John Gross from the Department of Commerce discussed the Minnesota Comprehensive Health Association, which provides insurance to many citizens who can't obtain it from the private sector because of cost or denial of coverage for preexisting conditions. He reviewed some MCHA costs that may be reduced in the future.

In a discussion following the presentations, Renner spoke on behalf of the MMA.

"In Minnesota, we have a tradition of not taxing necessities like food and clothing—yet we apply a sick tax to health care, which is a necessity," he said. "We need to determine the appropriateness of taxes that harm the goals of getting more people covered and controlling health care costs."

# MMA Reviews Prescription Drug Plans

Helping elderly Americans pay for prescription drugs has become a legislative obsession.

No one disagrees that health care reform must address prescription drug coverage, but deciding who will pay is like swallowing a pill the size of the federal government.

In Congress, both parties must work within a 1997 agreement to balance the federal budget, part of which called for $115 billion in Medicare savings by slowing the growth of payments to the medical industry. Drug manufacturers are wary of price controls or other federal interference. Some new legislation even puts pharmacies in the cost-cutting crossfire. A panoply of alternative prescription drug coverage bills will be debated in Congress and at the state level this year. The MMA will keep you posted, but here are a few you may want to remember:

### The President's Medicare Plan

President Clinton presented a proposal last June to reform Medicare and give seniors federal help in buying prescription drugs. The plan calls for new price competition among HMOs, with savings going to enrollees if they choose less expensive plans.

Medicare patients would pay slightly more for some of their health care, including 20 percent of the cost of medical laboratory tests. The plan includes a prescription drug benefit that allows Medicare recipients to buy prescription drug coverage for $24 per month in 2002 and $44 per month by 2008. Medicare would match prescription drug payments up to $1,000 in 2002 and up to $2,500 by 2008. Individuals earning less than $11,000 or couples earning less than $17,000 would be exempt from premiums and copayments. The plan also gives financial incentives for employers to provide a drug benefit to retirees.

> A panoply of alternative prescription drug coverage bills will be debated in Congress and at the state level this year.

Among the plan's critics are Republicans who say the plan is too costly and that Medicare should only help pay for drugs for enrollees who are poor and unable to get prescription coverage elsewhere. Some seniors say their budgets are so tight that paying $24 a month in addition to a 50 percent copayment is unaffordable.

### The Breaux-Thomas Medicare Reform Proposal

In March 1999, after a year of discussion, the National Bipartisan Commission on the Future of Medicare came up one vote short of sending Congress a proposal. Under the plan, developed by Sen. John Breaux (D-La.), the panel's co-chair, the government would no longer pay patients' bills directly or set prices for the services that Medicare covers. Instead, it would give enrollees money to pay insurance premiums to HMO plans or the fee-for-service version of the program. The plan did not pay for prescription drugs, but recommended federal drug funding through Medicaid for seniors up to 135 percent of poverty level.

Clinton and most Democrats on the panel argued that the Breaux plan would not save as much money as promised and could eventually

*DRUGS continued on page 36*

*DRUGS from 35*

cost patients more out-of-pocket. Members of the commission also disagreed on what Medicare should do to make it easier for patients to afford prescription drugs.

### Prescription Drug Fairness for Seniors Act

U.S. Rep. Bill Luther (D–Minn.) is a co-author of this bill, which would require drug manufacturers to offer seniors the same discounts given to HMOs, insurance companies, and the federal government. A report Luther released in April indicates that drug companies charge Minnesota seniors 124 percent more for prescription drugs, on average, than they charge their most favored customers.

When he co-authored the Prescription Drug Fairness to Seniors Act, Luther became a target of a media attack by Citizens for Medicare Reform, a pharmaceutical industry–backed coalition.

### Fair Medicare Act

A Minnesota bill sponsored by Senate Minority Leader Dick Day (R–Owatonna) and Sen. Dave Kleis (R–St. Cloud) recently proposed a plan that would pressure pharmacies to give Medicare customers the same discounts set by the federal government for Medical Assistance customers. The discounts aren't mandatory, but pharmacies that don't participate would be ineligible to fill prescriptions for either group. The state currently pays the average wholesale price for a drug plus a dispensing fee of $3 for each Medical Assistance prescription pharmacies fill.

In an interview with the Minneapolis *Star Tribune*, Day said he was not sure whether pharmacists or drug companies would experience profit loss by providing less expensive drugs to another half million Minnesotans. Research on a similar California law indicates pharmacists' profits may be somewhat affected, but increased customer traffic and sales on other items may help them recoup any losses.

The MMA is reviewing these and other proposals that may help seniors pay for prescription drugs. "Drug therapies that can help seniors stay active and healthy are unaffordable to many," said David Renner, MMA director of state and federal legislation. "The fact that Medicare does not have some form of drug coverage makes no sense in today's health care environment."

## Minnesota Taxpayers Association to Analyze Health Care Taxes

An advisory committee comprising six organizations, including the Minnesota Medical Association, has commissioned the Minnesota Taxpayers Association to prepare an analysis of health care taxes in the state. The analysis will be used to evaluate appropriateness of taxes such as the provider tax, insurance premium taxes, and Minnesota Comprehensive Health Association assessments. The results of the analysis may be useful in educating legislators about these issues.

The advisory committee, which also includes the Minnesota Council of Health Plans, the Minnesota Chamber of Commerce, the Minnesota Hospital and Health Partnership, the Minnesota Business Partnership, and the Insurance Federation of Minnesota, agrees the study should focus on demonstrating that funding health care programs through selective taxes, assessments, and fees is not necessarily the best way. Each organization on the advisory committee will have equal say on the direction and final outcome of the study. The results of the analysis should be available in January.

## Treatment Plan for Payment Delays Includes Education

In its ongoing effort to reduce payment delays to physicians, the Minnesota Medical Association plans to work with both health plans and clinics in 2000 to address factors that contribute to the problem.

Janet Silversmith, MMA director of health economics and policy analysis, said communicating with payers to identify recurring glitches, such as problems with coding and eligibility, could help physicians and clinics submit more streamlined claims. "After identifying these opportunities and obstacles, we plan to educate physicians about what they can do on their end to get paid as quickly as possible," said Silversmith.

The general standard for rate of payment is 30 days for clean claims.

A 1998 MMA survey found that the overall average payment time for claims from Minnesota physicians was 35.3 days.

# NEWS DIGEST

*People and places making medical news*



## People & Places

Jack Greene, M.D., a family physician at **Hibbing Family Medical Center,** was recognized by the **American Academy of Family Physicians** for 20 continuous years of academy membership.

**Darrell Carter, M.D.,** received the Outstanding Preceptor Award from the **University of Minnesota's Rural Physician Associate Program.** The award honors RPAP participants who are outstanding teachers and mentors of medical students. Carter is an RPAP preceptor at the **Affiliated Community Medical Center** in Granite Falls. **Michael Cady,** a fourth-year medical student at the university, received RPAP's Outstanding Student Achievement Award. Recipients of the awards receive a $500 check and a plaque.

**Blue Cross and Blue Shield of Minnesota** chose **Mark W. Banks, M.D.,** to succeed **Andy Czajkowski** as chief executive officer, effective January 1. Banks, who received his medical degree from the **University of Minnesota Medical School,** is the only physician leading a Minnesota health plan. Previously he was Blue Cross's president and chief operating officer.

**Stephen Mann, M.D.,** of Fridley, Minnesota, received a three-year appointment as Cancer Liaison Physician for the **Hospital Cancer Program** at **Unity Hospital.** Mann is part of a national network of more than 1,800 volunteer Cancer Liaison Physicians, who are an integral part of the **Commission on Cancer** of the **American College of Surgeons.** ■



## Socioeconomics

### State Enlists Local Help in HIV Prevention Efforts

**Breaking Free Inc., Community Fitness Today,** and the **Red Door Clinic** at the **Hennepin County Community Health Department** have been selected to conduct a series of "needs assessment" projects, focusing on Minnesotans who are most at risk for HIV infection. The **Minnesota Department of Health** is providing $60,000 in federal funding for the projects, which will be conducted over seven months beginning January 1.

### First Plan HMO to Add Staff

**First Plan of Minnesota,** an HMO based in Two Harbors, Minnesota, that insures 14,000 people in northeastern Minnesota and northwestern Wisconsin, announced that by April it will expand its staff of 160 by up to 35. First Plan will contract to process claims for **Blue Cross and Blue Shield of Minnesota,** which has seen its enrollment grow from 1.3 million in 1994 to more than 1.9 million in 1998. In 1986, First Plan became a corporate affiliate of Blue Cross.

### HealthSystem Minnesota Announces Cutbacks

**HealthSystem Minnesota** said it plans to lay off 138 workers—2 percent of its 6,800 employees—and cut 213 unfilled jobs, in an effort to reduce its operating costs by $25 million. The company expects to lose $27.2 million this year as a result of rising health care costs, reduced Medicare reimbursement, and other financial stresses, reported the Minneapolis *Star Tribune.*

HealthSystem Minnesota, which owns **Methodist Hospital, Park Nicollet Clinic,** and the **Primary Physician Network,** previously announced that it would close its Northfield clinic but said it does not anticipate ⇨

closing any of its 21 clinics in the metro area.

### MDH Awards Transition Grants to Rural Hospitals

Thirteen rural Minnesota hospitals received grants totaling $250,000 from the Minnesota Department of Health's Rural Hospital Planning and Transition Grant Program, which aims to preserve and improve access to health care in rural areas. The 13 hospitals are Lake Wood Health Center, Baudette; Swift County Benson Hospital, Benson; Grant County Medical Center, Elbow Lake; Falls Memorial Hospital, International Falls; St. Gabriel's Hospital, Little Falls; Lakewood Health System, Staples; Appleton Municipal Hospital; Arlington Municipal Hospital; Jackson Medical Center; Pine Medical Center, Sandstone; Sleepy Eye Municipal Hospital; St. James Health Services; and St. Elizabeth's Hospital, Wabasha. The grant program, enacted by the Legislature in 1990, is administered by the Office of Rural Health and Primary Care.

### Five Minnesota Hospitals Are among Nation's Top 100

HCIA, a health care information company in Baltimore, rated five Minnesota hospitals among the country's top 100 for high-quality, cost-effective services. Those cited include Rochester Methodist, SMDC Health System in Duluth, and the hospitals in Buffalo, St. Cloud, and Northfield. HCIA assessed data on mortality rates, compilation rates, length of stay, and cost per procedure at more than 3,200 hospitals nationwide that receive Medicare payments.


Medical Director

Occupational and Environmental Medicine

HealthPartners is a Minnesota-based, not-for-profit healthcare organization serving over 300,000 patients in the Minneapolis/St. Paul metropolitan area. The Occupational and Environmental Medicine program (OEM) is a key component of our Worksite Health department which delivers health and productivity services. We have an exciting opportunity for an innovative Medical Director to lead our OEM program, which focuses heavily on clinical practice and business consulting, includes an OEM residency training component, and blends them successfully within a mature managed care setting.

You must be board certified in Occupational and Environmental Medicine with at least five years recent clinical practice experience in OEM and three years of demonstrated success in physician and program management. You should be an effective communicator, with the ability to collaborate with physicians, other clinical professionals, operations and financial professionals, and client companies. Teaching experience is preferred.

Fax your CV to 612-883-5395 or mail to: HealthPartners, Physician Services, Attn: Sandy Lachman, P.O. Box 1309, Minneapolis, MN 55440-1309. For more information, call 612-883-5338 or email: sandy.j.lachman@healthpartners.com. EOE/AA Employer

HealthPartners®

Medical Group & Clinics

*HealthPartners' mission is to improve the health of our members and our community*


### Five of Nine Allina Mental Health Clinics to Close

By early this year, five of Allina Health System's Behavioral Health Clinics in the metro area will close, leaving four. The company's decision to consolidate reflects the financial pressures that have been rampant throughout the medical care system.

Clinics that are scheduled to close include those in Roseville, Burnsville, Minnetonka, Brooklyn Center, and West St. Paul. Allina also plans to shift the focus of its mental health services to psychiatric care.

### Twin Cities Seniors Pay the Most for Medicare

Senior citizens in the Twin Cities are burdened with the nation's highest Medicare HMO premiums—$85 per month on average—according to government data analyzed by the Minneapolis *Star Tribune*. In contrast, only 11 percent of Medicare HMO members across the nation pay $45 or more in monthly premiums.

Minnesota has long lamented the inequity in federal support payments to Medicare HMOs. In areas with high medical costs, such as Miami and Phoenix, reimbursement is high enough for Medicare HMOs to offer plans without imposing premiums. In the Twin Cities, HMOs charge premiums to compensate for insufficient federal reimbursement.

### Blue Cross Grants $61,000 to Reduce Teen Smoking

Teens at Como Park and Arlington senior high schools in St. Paul will receive training to lead their peers in an anti-tobacco youth advocacy effort funded by a $61,000 foundation grant from Blue Cross and Blue Shield of Minnesota. The schools are working in cooperation with faculty from the Minneapolis VA Medical Center, the University of Minne-

sota Department of Medicine and School of Public Health, and the Minnesota Smoke-Free Coalition.

The antismoking grant is one of seven grants, totaling over $213,000, awarded by the Blue Cross and Blue Shield Foundation. Among the other recipients is Suicide Awareness/ Voices of Education in Edina, Minnesota, which will offer a school-based program to train students, parents, and school personnel in suicide prevention.

### Mayo to Make Major Donation to 'First Homes' Project

In an effort to address the housing crisis in the Rochester, Minnesota, area, the Mayo Clinic said it will donate up to $7 million for the construction of 500 starter houses and 375 rental units within a 30-mile radius of Rochester. The Rochester Area Foundation will also donate $1 million to the employer-assisted housing project.

### World's Largest Info-Tech Company Buys Abaton.com

Twin Cities–based Abaton.com, a health care software company based in Bloomington, Minnesota, was purchased by McKesson HBOC Inc. San Francisco–based McKesson is the largest health care information technology company in the world, as well as a major supplier of medical equipment.

Abaton.com, which employs about 60, was founded in 1997 by former United HealthCare executive Jim Bradley to develop Internet-based software for prescribing, ordering labs, reporting results, and managing physician practices electronically.

### Mayo Clinic Expands Web Offerings

The Mayo Clinic, together with the Shansby Group, a private investment firm in San Francisco, is gearing up to start another health Web site for consumers. According to the Minneapolis *Star Tribune,* they plan to expand Mayo's Internet site, Mayo Clinic Health Oasis, to offer more specialized

⇨


## Associate Medical Director

Health Risk Management, Inc. (HRM) a leader in the health care information market, provides comprehensive, integrated health care management, information technologies and health benefits administration to clients internationally. We are currently offering an exciting opportunity for an Associate Medical Director.

This position is responsible for the continuous improvement of the medical content and medical value of HRM medical management products, services and programs, and for the promotion and support of those products, services and programs in the national marketplace.

This position will provide managerial oversite of the Care Management department. This includes responsibility for departmental performance and human resource management, financial & strategic planning, program development, and business unit participation. Also includes evaluating the medical content and value of HRM products and recommending changes and improvements, which will enhance their value in the market. The Associate Medical Director will manage the Physician Reviewer functions and be responsible for client support. The Care Management Lead will report to the Associate Medical Director.

Qualifications include:

- An M.D. is required, along with executive and leadership skills
- Extensive managed care industry knowledge
- Excellent communications skills
- In-depth understanding of medical delivery systems

HRM offers an outstanding salary and complete benefit package including flexible paid time off, tuition reimbursement and 401(k) plan with a company matching contribution. If you are interested in this challenging opportunity, please direct your resume and salary history in confidence to:

**Health Risk Management, Inc.**
10900 Hampshire Ave. S.
Minneapolis, MN 55438
fax 612-829-3664
email: jobs@hrmi.com

medical information to consumers.

"The Internet is changing the practice of medicine," **Michael Wood, M.D.**, chief executive of the **Mayo Foundation**, told the *Star Tribune*. "People using our site will get individual information and guidance about their health care questions and concerns."

Visitors to the Web site will be able to join chat room discussions with physicians and inquire about treatments by completing questionnaires.

### Judge Denies Class-Action Status in Smokers' Lawsuit

A Minnesota lawsuit seeking smoking-cessation and medical-monitoring programs from the tobacco industry was denied class-action status by **U.S. District Judge Paul Magnuson**, according to a report distributed by Bloomberg News. The lawsuit was filed on behalf of 700,000 current and former Minnesota smokers.

*Information compiled from the* St. Paul Pioneer Press, *the Minneapolis* Star Tribune, *the Associated Press, and news releases.*



## Research & Innovations

### MPCA Reports High Level of Toxins in Air

In an analysis of air toxin data gathered over the past 10 years from air-quality monitoring stations from Warroad, Minnesota, to Rochester, the **Minnesota Pollution Control Agency** has found in some areas 10 toxins in concentrations that exceed health guidelines and could increase the risk of cancer and other ailments. Among the toxins are formaldehyde, benzene, and other emissions that evaporate from gasoline or are combustion byproducts.

**Rep. Jean Wagenius**, DFL-Minneapolis, told the Minneapolis *Star Tribune* that the MPCA study will alarm many citizens who believed the air quality in the metro area to be safe because of the recent discontinuation of the vehicle emissions testing program.

In a prepared statement, **Minnesota Commissioner of Health Jan Malcolm** said, "We agree with the MPCA that air toxics can present a serious health concern."

Other chemicals cited as being outside the state guidelines by at least one of the 27 testing stations were chloroform, arsenic, nickel, carbon tetrachloride, ethylene dibromide, and chromium.

### Early Study Finds Lyme Disease Vaccine Safe for Children

A pilot study of the new Lyme disease vaccine **Lymerix**, led by experts at the **University of Connecticut School of Medicine** in Farmington and the **Connecticut Children's Medical Center** in Hartford, indicated that the vaccine appears safe and effective for children. The study, which involved 250 healthy children aged 5 to 15, took place in the Czech Republic.

None of the children experienced severe side effects. Headache and malaise, the symptoms reported most often, disappeared within four days. Results of the study were reported in the *Journal of Pediatrics*. Further testing of Lymerix on about 4,000 children in the United States is scheduled to be finished next year.

### Fen-Phen Damage Not Always Permanent

**Mayo Clinic** researchers have found that mild heart valve damage in patients who took the weight-loss drugs fenfluramine and phentermine may clear up. The study, which was reported in the December *Mayo Clinic Proceedings*, involved 30 men and women who had been enrolled in a trial of fen-phen when the diet drug combination was taken off the market in 1997. Nineteen of them took fen-phen; five of the 19 suffered heart valve damage. Over time, their heart valves showed evidence of healing, however.

**Donald Hensrud, M.D.**, a Mayo Clinic nutrition specialist who headed the study, told the *St. Paul Pioneer Press*, "For the first time, we have evidence that heart valve damage—at least in people with mild disease—may not be permanent."

### Aneurysm Risk Increases with Cocaine Use

Researchers at **Hennepin County Medical Center** (HCMC) found aneurysms in 30 percent of 112 cocaine users, a rate six times that seen in an earlier study of heart disease patients.

Although cocaine has often been linked to heart attacks and strokes, it has not previously been associated with coronary aneurysms. **Aaron Satran, M.D.**, the lead investigator and chief medical resident at HCMC, speculated that cocaine may harm the inner lining of the artery, making it vulnerable to ballooning. Satran and his colleagues undertook the research because they had so often encountered aneurysms in young cocaine users.

"We do not believe this damage is reversible," Satran told the Minneapolis *Star Tribune*.

# A Vehicle Buying and Leasing Program With Special Benefits

- One stop shopping by phone or fax
- Buy or lease
- Any make or model
- Car, truck or sport utility vehicles
- New or used
- Save time
- Save money
- Eliminate shopping frustration

Remember, whether you purchase or lease, MMBR Motor Services and Creative Leasing, Inc. will help you get the most vehicle at the best price. We'll even help you sell your old auto.

Use your money wisely. For personal attention and lease or purchase information on any vehicle, call 612/623-2860, or toll-free 800/298-MMBR.

MMBR Motor Services is a service of Minnesota Medical Business Resources, a physician-owned corporation of your medical association.

**New Vehicle Leases****

| | Make/Model | MSRP | Your Price* | 24 Mo | 36 Mo | 48 Mo |
|---|---|---|---|---|---|---|
| **Cars** | 2000 Honda Accord LX, 4dr, AT | $19,755 | **$18,521** | $320 | $276 | $272 |
| | 2000 Toyota Camry LE, 4dr, AT | $20,743 | **$19,166** | $373 | $308 | $281 |
| | 2000 Subaru Legacy Outback Wagon | $23,990 | **$22,805** | $424 | $364 | $337 |
| **SUVs** | 2000 Chev Blazer LS, 4 dr, 4WD | $26,995 | **$24,795** | $417 | $340 | $376 |
| | 2000 Ford Explorer XLT, 4dr, 4WD | $29,675 | **$26,808** | $546 | $456 | $404 |
| | 2000 Dodge Durango SLT, 4 dr 4WD | $29,425 | **$27,136** | $520 | $432 | $386 |
| | 1999 Chev Tahoe LS, 4WD, 4dr | $33,307 | **$29,900** | $555 | $478 | $422 |
| | 2000 Chev Suburban LS, 4WD, 1/2ton | $37,387 | **$33,448** | $566 | $499 | $454 |
| | 2000 Ford Expedition XLT, 4WD, 4dr | $33,165 | **$29,047** | $546 | $466 | $411 |
| **Pickups** | 2000 Chev, 1/2ton Extcab, LS, 4WD | $27,781 | **$24,695** | $414 | $355 | $321 |
| | 2000 Dodge 1/2ton Quadcab, SLT, 4WD | $27,315 | **$24,441** | $429 | $365 | $328 |
| | 2000 Ford 1/2ton Supercab, XLT, 4WD | $27,500 | **$23,986** | $419 | $359 | $326 |

MANY REBATES & LOW FINANCING AVAILABLE ON QUALIFIED VEHICLES— ALL FIGURES QUOTED ARE BEFORE ANY REBATE REDUCTIONS

Effective date 12/1/99

* Sale price before tax, license, and license fees.

** All lease payments listed above are monthly lease payments before tax on factory ordered leases. These lease payments are based on a $0.00 cap reduction and 15,000 miles/year. The only moneys needed to start the above leases are first payment, security deposit, and license for the first year.

*** Lease payments/month on 2000 model year vehicles should be just about the same as 1999s. Order your 2000 model today!



**MMBR**

MOTOR SERVICES

MINNESOTA MEDICAL BUSINESS RESOURCES OWNED BY MMA & HMS

# Minnesota's Medicare PRO Focuses on Quality Improvement

*When it comes to health services,*
*Stratis Health sees room for improvement. That's its job.*

Jane Pederson, M.D., M.S., Tom Arneson, M.D., M.P.H., and Jennifer Lundblad, M.B.A.

Atrial fibrillation, or rapid, irregular heartbeat, has long bedeviled the health professionals who must diagnose, treat, and manage the approximately 23,000 Medicare beneficiaries presenting to Minnesota clinics each year with this illness. In the fall of 1996, Stratis Health formed an advisory group of Minnesota primary care and specialty physicians and nonphysician health care providers to discuss what changes could be made to improve the diagnosis, treatment, and management of such patients by providers in Minnesota.

At the time, large clinical trials were under way to determine who should be placed on anticoagulant therapy for stroke prevention and which agent they should receive. The advisory group encouraged Stratis Health not to focus on determining which patients with atrial fibrillation should receive anticoagulation or which agent they should receive, but instead, on the adequacy of the systems in place for monitoring and managing those patients receiving warfarin. Optimal treatment with warfarin could reduce the incidence of stroke in patients with atrial fibrillation aged 65 and older by 50% and lower costs by an estimated $600 million yearly in the United States.

## *The Anticoagulation Management Project*

To address the need for monitoring and managing the drug therapy of patients with atrial fibrillation, Bloomington, Minnesota–based Stratis Health, Minnesota's Medicare Peer Review Organization (PRO), studied current practices of anticoagulation management and searched for innovative strategies to improve them. Visits to health care organizations and medical literature reviews led Stratis Health to focus on creating coordinated systems for anticoagulation management in its Anticoagulation Management (ACM) in Patients with Atrial Fibrillation project. Stratis Health identified the following key components of coordinated systems for anticoagulation management:

- patient-tracking mechanism, often computerized,
- monitoring and management of warfarin therapy by a nonphysician provider working under protocol,
- standardized patient education, and
- consistent point of service.

These components were intended to ensure appropriate patient education, decrease the likelihood of patients not being followed up, ease physician and nursing workload, and, potentially, increase reimbursement for time spent managing anticoagulation. Physicians such as Mark Monson, M.D., an internist at St. Mary's/Duluth Clinic (SMDC), inspired the project.

In his years as a missionary doctor in Liberia, Monson learned the importance of evaluating ways to manage or improve the health of a population. Applying that lesson later, he developed and helped set up a coordinated system for anticoagulation monitoring and management for a small population of SMDC patients. The Duluth clinic participated in the Stratis Health project, offering encouragement to the other clinics and often sharing strategies, clinical management tools, and advice.

In June 1997, the Stratis Health ACM project was launched. Nineteen clinics participated in the two-year effort, during which Stratis developed a workbook that outlined the key steps for implementing a system for ACM and creating a business plan. Clinics received additional support through an initial educational conference, follow-up conference calls and networking with other clinics, and consultation with Stratis Health staff.

The project was successful in many ways. The percentage of Medicare patients with international normalized ratios (INRs; a measure of the degree of anticoagulants received) monitored at recommended intervals increased from 85% to 92% ($p<0.05$), and the percentage of intervals with the INR in the recommended range increased from 66% to 81% ($p<0.05$). These monitoring and management systems also influenced the prescribing of warfarin. The percentage of patients with atrial fibrillation who were eligible for warfarin therapy and receiving treatment increased from 72% to 90%.

The programs also eased physician workload. In addition, patients liked having a constant point of con-

tact, a standard routine for receiving INR results, and further instructions about warfarin.

Yet another outcome of the project was the Northland Antithrombotic Collaborative, an organization formed by the clinics that worked on ACM. Now in its second year, the collaborative was developed as a forum for sharing ideas and discussing solutions to challenges the clinics faced. The group plans to collaborate across organizations on topics such as standard definitions of bleeding risks, the broader issue of antithrombosis, and other diseases and treatments.

## *Looking Ahead*

The ACM project typifies Stratis Health's work in Minnesota. Over the next three years, Stratis Health will continue to support this and other efforts to improve health care delivery systems, focusing on clinical topics important to Medicare beneficiaries, namely, acute myocardial infarction, heart failure, pneumonia and immunization, diabetes, breast cancer, and stroke/TIA/atrial fibrillation. Stratis Health will also sponsor projects like ACM, bringing a group of hospitals or clinics together to create a system change. In addition, it will further emphasize creating collaborations, such as the Northland Antithrombotic Collaborative, and working with other health care organizations to support clinical quality improvement initiatives. Stratis Health plans to play a larger role as an educational and resource clearinghouse for information on specific topics, quality improvement tools, and strategies for hospitals, clinics, and managed care organizations that serve Medicare beneficiaries.

Stratis Health and other PROs nationwide will also apply the quality improvement model to inpatient payment error, collaborating with hospitals to improve error identification, coding, and billing. Finally, Stratis Health will continue to provide education and outreach to Medicare beneficiaries, respond to beneficiary quality-of-care concerns, and conduct hospital case reviews.

Many Minnesota providers and practitioners recall the days when the PRO contract focused on retrospective medical record review. In 1992, HCFA initiated the change to collaborative quality improvement projects as the emphasis of PRO work, a change Stratis Health embraced. Now, with its new three-year PRO contract, Stratis Health's sixth with HCFA, the organization has an expanded public health mandate, national and statewide topics for improvement, and an even stronger push for collaboration and coordination.

Physicians and others interested in learning more about the current quality improvement resources and initiatives available through Stratis Health may call 612/854-3306 or e-mail info@stratishealth.org to ask about a specific topic, speak to a clinician, or be put on the Stratis Health newsletter mailing list. MM

*Jane Pederson is director of Medical Affairs, Tom Arneson is director of Population Health Assessment, and Jennifer Lundblad is director of Project Operations and Communications at Stratis Health.*




**Continuing Medical Education**

**sponsored by Allina Health System**

**January 2000**

**7** **Pneumococcal Vaccine**
PRESENTED BY: Allina Telemedicine Education Program
LOCATION: 27 Telemedicine Sites, call (612)992-8341 for more details

**7** **New Drugs: The Bottom Line**
PRESENTED BY: Allina Telemedicine Education Program
LOCATION: 27 Telemedicine Sites, call (612)992-8341 for more details

**14** **How Long Do I Have to Live Doc?: A Cardiovascular Update**
PRESENTED BY: Allina Telemedicine Education Program
LOCATION: 27 Telemedicine Sites, call (612)992-8341 for more details

**28** **Parkinson's Disease**
PRESENTED BY: Allina Telemedicine Education Program
LOCATION: 27 Telemedicine Sites, call (612)992-8341 for more details

**28** **Herbs and Dietary Supplements**
PRESENTED BY: Allina Telemedicine Education Program
LOCATION: 27 Telemedicine Sites, call (612)992-8341 for more details

**February 2000**

**8** **Advanced Cardiac Life Support (ACLS) Renewal**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Buffalo Hospital, Buffalo

**16** **Advanced Cardiac Life Support (ACLS) Renewal**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Abbott Northwestern Hospital, Minneapolis

**17** **Cardiovascular Rehabilitation Workshop**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Mercy Hospital Heart Center, Coon Rapids

**March 2000**

**29** **Principles of Diabetes Management: Basics and Trends**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Abbott Northwestern Hospital, Minneapolis

**April 2000**

**10 & 11** **Advanced Trauma Life Support (ATLS)**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: United Hospital Conference Center, St. Paul

**12** **Advanced Diabetes Management: Complications & Trends**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: United Hospital, St. Paul

**May 2000**

**5** **1st Annual Vascular and Echocardiography Conference**
PRESENTED BY: Minneapolis Heart Institute
LOCATION: Airport Hilton, Bloomington

**September 2000**

**18 & 19** **Advanced Trauma Life Support (ATLS)**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: United Hospital Conference Center, St. Paul

**October 2000**

**26 & 27** **2000 Front Line Neurology Symposium**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: DoubleTree Hotel, by Mall of America, Bloomington

**For more information contact:**
Allina Education and Research Administration at (612)992-2424

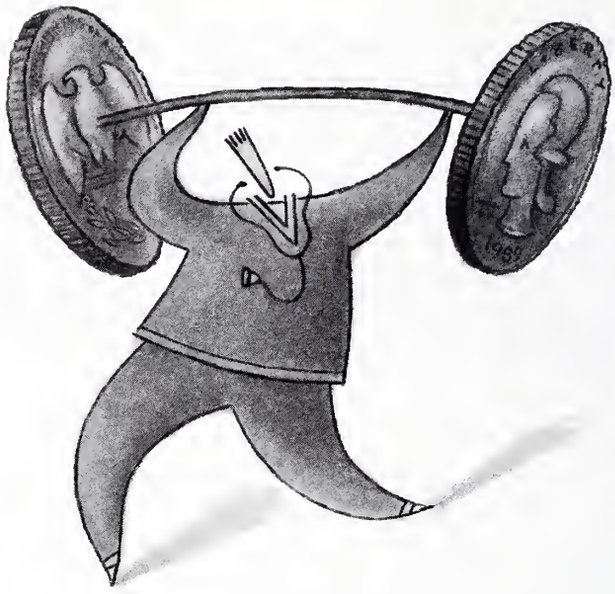


ALLINA
HEALTH SYSTEM

© 1999 Allina Health System

**Visit the Allina CME Calendar at http://www.allina.com**

# We've got the strength in numbers to help you with your office supply needs.



Office Depot and
Minnesota Medical Business Resources
present...

## The Office Supply Program

Minnesota Medical Business Resources and Office Depot are pleased to offer the following special program for members of the Minnesota Medical Association and their clinics.

The Office Supply Program includes:

- Up to 80% off list price on the items most frequently ordered by medical clinics.
- Average of 45% off list price on all other stocked items.
- 750 items of furniture available for next day delivery.
- Easy ordering via Fax or Internet—customized forms developed for your clinics based upon frequently ordered items.
- Retail market pricing on electronics, business machines and software.
- FREE next business day delivery to all of Minnesota.
- Retail store purchasing cards for your emergency needs, copies, specials.
  *Receive your contract pricing at our retail stores.*
- Quarterly rebate of 3% on stocked item purchases.

To establish an account or if you have questions, please contact:

**Brad Broman**
**Account Manager**
**Direct line: 612-513-4056 • Outstate: 800-392-4777 x4056**
**email: bbroman@officedepot.com**

Office DEPOT
Business Services Division

MMBR
Minnesota Medical Business Resources
Owned By
MMA & HMS

# Diagnosis and Management of Carotid Stenosis: A Review

*Despite the many clinical trials performed in the last 10 years, how to care for patients with carotid stenosis is often less than clear.*

Eric S. Nussbaum, M.D.

ABSTRACT

**Since its introduction in the 1950s, carotid endarterectomy has become one of the most frequently performed operations in the United States. The tremendous appeal of a procedure that decreases the risk of stroke, coupled with the large number of individuals in the general population with carotid stenosis, has contributed to its popularity. To provide optimal patient care, the practicing physician must have a firm understanding of the proper evaluation and management of carotid stenosis.**

**Nevertheless, because of the large number of clinical trials performed over the last decade addressing the treatment of stroke and carotid endarterectomy, the care of patients with carotid stenosis remains a frequently misunderstood topic. This review summarizes the current evaluation and treatment options for carotid stenosis and provides a rational management algorithm for this prevalent disease process.**

Stroke has been recognized as a clinical entity for thousands of years. Ancient Greeks used the term "apoplexy" to describe a variety of stroke syndromes and appreciated the fact that compression of the great vessels in the neck could produce unconsciousness.[1] Although over time scattered reports suggested a link between carotid artery disease and stroke, it was not until the 1950s that Fisher's pioneering work established atherosclerotic stenosis and occlusion of the carotid arteries as a major source of stroke.[2] In fact, Fisher suggested that some form of surgical intervention, possibly a bypass procedure, could be used to prevent stroke. In 1954, the first successful carotid endarterectomy (CEA) was reported.[3] Since then, appropriate surgical indications have been refined and surgical techniques have improved considerably.

Today, stroke remains the third leading cause of death in the United States and a major source of disability in surviving victims. Recent clinical trials evaluating the management of stroke and carotid stenosis have provided better objective information upon which to base patient care decisions but have also complicated the picture, at times providing conflicting results. This review summarizes the current evaluation and treatment options for carotid stenosis and provides a rational management algorithm for this prevalent disease process.

## *Presentation*

Individuals with carotid stenosis come to medical attention when an incidental cervical bruit is discovered, either during a general evaluation for systemic atherosclerotic cardiovascular disease, or after a neurologic event. Most individuals with carotid stenosis are asymptomatic. Because the natural history of the disease process seems to change significantly once symptoms appear, asymptomatic and symptomatic patients should be regarded as distinct populations.

## *Bruit*

Although the differential diagnosis of cervical bruit is extensive, most cases are caused by carotid atherosclerosis or a cardiac murmur. In approximately 70% of patients with carotid stenosis, the presence of a bruit implies a significant stenosis. However, it is important to note that a stenosis of only 25% can produce a bruit, while a bruit may be absent in the face of a critical stenosis because of the diminished flow.[4] In large population-based studies, approximately 450/100,000 individuals are found to have an asymptomatic carotid bruit, with a bruit identified in approximately 4% of the population over 40 years of age, and 8% over 75 years.[5-7]

In the Framingham study, the risk of stroke or TIA was 2-3 times more likely in patients with bruit. This group was also 2.5 times more likely to suffer a myocardial infarction, and had a 1.9 times higher risk of death than matched controls. Therefore, while the presence of a bruit should prompt an evaluation of the carotid arteries to rule out significant stenosis, it should also be regarded as a general hallmark of systemic atherosclerotic disease mandating a thorough preoperative evaluation if surgery is contemplated.[8]

## *Neurological Event*

A transient ischemic attack (TIA) is defined as a focal loss of brain function or vision that fully resolves within 24 hours. These attacks typically represent artery-to-artery emboli and are characterized by the rapid onset of neurological deficit, with 75% resolving fully within minutes. The most common manifestations of TIA include weakness or numbness of the contralateral face and/or upper extremity, loss of or difficulty with speech or comprehension, and transient monocular blindness (amaurosis fugax). Lower-extremity involvement is less common, headache is seldom present, and contrary to popular belief, dizziness, vertigo, and frank loss of consciousness are rarely produced by carotid stenosis. The differential diagnosis of TIA includes seizure, migraine, and metabolic disturbance such as hypoglycemia.

It is noteworthy that 50% to 75% of stroke patients have a history of TIA, and a significant carotid stenosis is present in 30% to 50% of patients with TIA.[1] In the North American Symptomatic Carotid Endarterectomy Trial (NASCET), patients with greater than 70% stenosis who suffered a TIA or minor stroke had a two-year stroke risk of 26%, with the greatest risk during the immediate weeks and months after TIA.[9] The occurrence of a TIA or minor stroke should therefore prompt urgent evaluation of the carotid arteries, and should be regarded as an important warning sign of a potential major stroke. A small subset of patients will present with multiple TIAs occurring over a short interval, also known as crescendo TIAs, which should be regarded as a particularly dangerous situation.

## *Evaluation of Carotid Stenosis*

### Ultrasound

Doppler ultrasound of the carotid arteries remains the primary screening tool for the evaluation of carotid stenosis. The use of ultrasound as a noninvasive technique to rule out carotid bifurcation disease has a reported accuracy of 87% to 95%, which is enhanced by the use of color-flow Doppler-assisted duplex scanning.[10] Nevertheless, Doppler ultrasound does have important limitations. It is well known that duplex underestimates the degree of stenosis and may be less reliable in the context of high-grade stenosis.[11-13] In addition, the technique is highly operator-dependent, resulting in significant variability.[14] [Author's note: I have been struck on occasion by cases in which experienced ultrasonographers have erroneously labeled a normal artery as highly stenotic or a nearly occluded artery as normal.] For these reasons, although others have recommended CEA on the basis of ultrasound without confirmatory testing, in my opinion, there is little or no role for surgery based on ultrasound alone.[15]

### Angiography

So far in 2000, conventional catheter angiography remains the gold standard in the evaluation of carotid stenosis. Angiography accurately delineates the degree of stenosis as well as any intraluminal irregularity, ulceration, or thrombus (Figure1). It also allows for the simultaneous evaluation of the collateral intracranial circulation and any intracranial (tandem) stenosis.[16] Historically, angiography is reported to carry a non-neurologic complication rate of 1% to 7% and a neurologic complication rate of 0% to 28%.[17] Most contemporary series, however, report an overall complication rate below 5%, with less than 1% resulting in permanent injury.[18] In certain cases, such as extremely severe stenosis, angiography may be the only way to adequately demonstrate the presence of a patent, though nearly occluded, vessel.

### MRI/MRA

To avoid the risks of angiography, accurate noninvasive methods have been sought, and magnetic resonance angiography (MRA) has emerged as a promising technique (Figure 2).[19] MR avoids radiation, contrast exposure, and the risks of an invasive procedure. It is also less expensive. Like angiography, MR allows for rotational views and concurrent evaluation of the intracranial circulation. MRA and conventional angiography show a high correlation, though the correlation is lower when the stenosis is only moderate, and MR tends to overestimate the degree of stenosis.[20] MRA may falsely suggest occlusion, particularly in the setting of vessel redundancy or coiling. I have found MRA useful in patients with clearcut symptoms, a clear ultrasound that correlates well with the MRA, and a contraindication to angiography, e.g., borderline renal dysfunction, or a significant dye allergy. It is likely that this technique will one day largely replace conven-

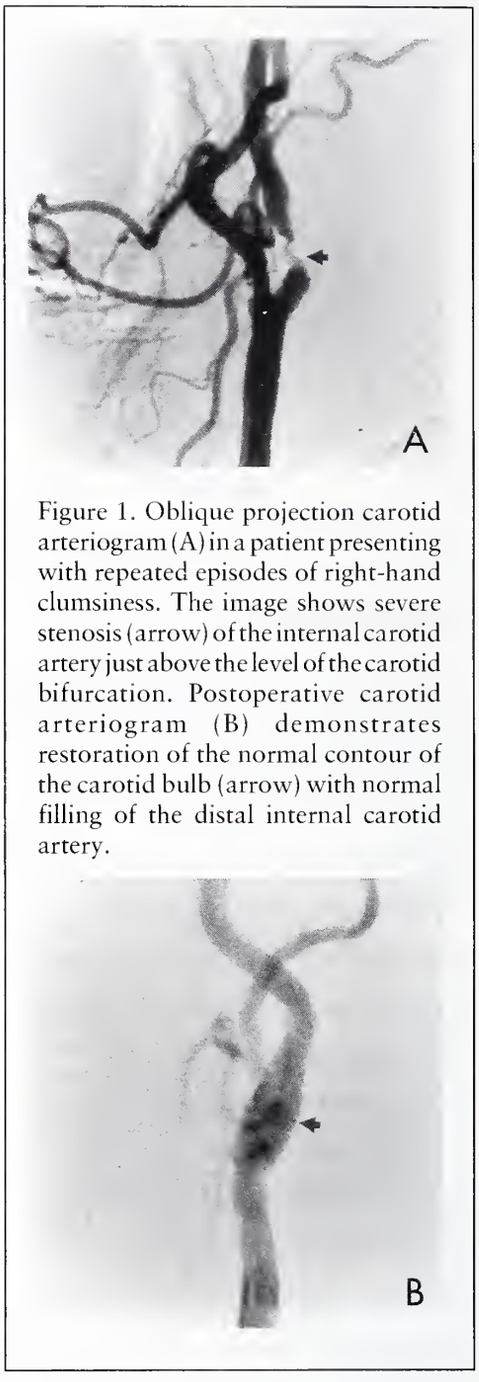



Figure 1. Oblique projection carotid arteriogram (A) in a patient presenting with repeated episodes of right-hand clumsiness. The image shows severe stenosis (arrow) of the internal carotid artery just above the level of the carotid bifurcation. Postoperative carotid arteriogram (B) demonstrates restoration of the normal contour of the carotid bulb (arrow) with normal filling of the distal internal carotid artery.

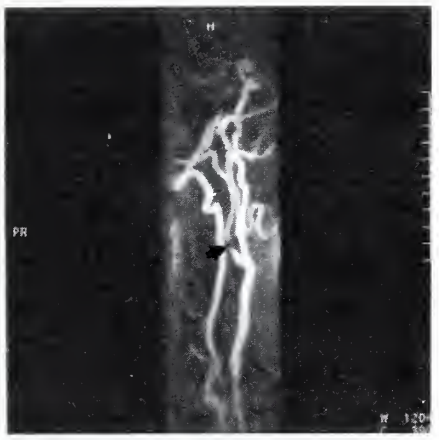


Figure 2. Magnetic resonance angiography (MRA) image of the left carotid artery in the neck demonstrates severe narrowing of the internal carotid artery (arrow) just above the bifurcation.

tional angiography. Meanwhile, technique variability can still result in potentially dangerous false positives and false negatives.

## *Management of Carotid Stenosis*

The management of carotid stenosis must be individualized for each patient and depends on the clinical setting. In virtually all cases, patients with carotid stenosis should be considered for risk factor modification. The same risks that are well-known to the physician for coronary disease, i.e., hypertension, smoking, diet, lipid profile, and diabetes mellitus, warrant evaluation and treatment. Medical management may also include the institution of antiplatelet agents and/or anticoagulant therapy. The role of aspirin in preventing stroke after TIA or minor stroke has been heavily researched, and the largest clinical trials have all shown benefit.[1] The optimal dose remains controversial, but a minimum of 325mg/day is generally recommended. Newer antiplatelet agents may further lower stroke risk but may also carry significant side effects. The long-term use of warfarin should be instituted judiciously because of the consequences of long-term anticoagulation, particularly in an older patient who may be prone to falls.

In deciding whether surgery is an appropriate treatment, symptomatic and asymptomatic patients should be evaluated differently. It is rare to encounter a candidate for CEA who is otherwise in excellent health; most patients are over age 65 and have multiple comorbid factors. Preoperative evaluation should include assessment of coronary artery disease, hypertension, diabetes, and pulmonary or renal dysfunction. Since myocardial infarction is the most frequent cause of perioperative death following CEA, a thorough cardiac evaluation is appropriate.

## *Symptomatic Carotid Stenosis*

Patients with symptomatic carotid stenosis represent the more straightforward group because a number of carefully designed clinical trials have provided very clear data to establish treatment guidelines. In the NASCET study, patients with greater than 70% carotid stenosis had an absolute risk reduction of 17% with CEA vs. medical therapy, and a relative risk reduction of 65% for ipsilateral stroke or death.[9] Therefore, if the stenosis exceeds 70%, CEA is the treatment of choice unless surgery is contraindicated because of general medical condition. If the stenosis is less than 70%, most patients are managed best without surgery. NASCET data show that men with 50% to 69% stenosis and a history of a recent hemispheric TIA obtained only a modest stroke risk reduction with surgery.[21] Below 50%, surgery is rarely indicated, and below 30%, it should not be considered.[22]

## *Asymptomatic Carotid Stenosis*

Management of patients with asymptomatic carotid stenosis is significantly more controversial. A number of clinical trials, including the Asymptomatic Carotid Atherosclerosis Study (ACAS), suggest that surgery may benefit patients with greater than 60% stenosis.[23] In ACAS, the aggregate risk over five years for ipsilateral stroke and any perioperative stroke or death was estimated to be 5.1% for the surgical group and 11% for patients treated medically. In this study, the combined perioperative morbidity and mortality was only 3%, with the benefit significantly greater in men. Based on these data, the risk of stroke in asymptomatic patients is substantially lower than that for symptomatic patients (approximately 2% per year vs. 13% per year, ACAS vs. NASCET). Therefore, asymptomatic patients will only benefit if the surgery is performed with extremely low complication rates. Younger patients in good general health are most likely to benefit. At present, it is impossible to give strict guidelines regarding the role of surgery in asymptomatic patients, but if the major morbidity and mortality rates of surgery approach 6%, clearly the beneficial effect is lost.

Table

*Complication rates in 358 patients undergoing 402 carotid endarterectomies at the University of Minnesota, 1991–1999*

| Complication | Number (%) |
|---|---|
| TIA | 5 (1.2) |
| Minor stroke | 4 (1.0) |
| Major stroke* | 2 (0.50) |
| Cranial neuropathy | 8 (2.0) |
| Myocardial infarction | 4 (1.0) |
| Sepsis | 1 (0.25) |
| Pulmonary failure | 3 (0.75) |
| Aborted procedure | 2 (0.50) |
| Hyperperfusion* | 3 (0.75) |
| Death* | 2 (0.50) |

* Patients with multiple complications.

## *Carotid Endarterectomy*

Although the purpose of this paper is neither to detail surgical technique nor to debate the usefulness of specific surgical adjuncts, it should be noted that CEA may be performed under general or regional anesthesia, by

neurosurgeons or vascular surgeons, and with the selective or routine use of EEG monitoring and intraluminal shunting. One important conclusion of NASCET was that none of these factors appeared to affect patient outcome. A substantial body of evidence shows that an important factor influencing outcome is patient volume.[24,25] Because CEA is essentially a prophylactic procedure designed to decrease future risk of stroke, it is critical that individual surgeons track their own complication rates to ensure an acceptable range.

## *Results and Complication Rates*

The results of CEA at the University of Minnesota from 1991 to 1999 are detailed in the table (page 47). The results of NASCET establish appropriate and attainable goals for morbidity rates from CEA. In general, the risk of any stroke from CEA should be less than 4%. Death is typically related to myocardial infarction or a massive stroke, and mortality rates should be less than 1%. In addition, cranial nerve injury occurred in 7.6% of cases in NASCET and may involve the hypoglossal, superior, or recurrent laryngeal, marginal branch of the facial, and rarely the glossopharyngeal or spinal accessory nerves. Most nerve injuries resolve in three to six weeks.

In the setting of long-standing, severe hypoperfusion from a critical stenosis, the great increase in cerebral blood flow postoperatively may lead to headache, cerebral edema, seizure, or even intracerebral hemorrhage. Fortunately, such a hyperperfusion syndrome is extremely rare, occurring in less than 1% of cases. Wound hematoma, which was identified as a complication in 5.5% of cases in NASCET, is typically small and not problematic, but rarely, a significant hematoma may result in airway compromise and can cause death from respiratory arrest if not treated promptly. Myocardial infarction has a reported incidence of approximately 1% with other cardiac disturbance such as arrhythmia and congestive heart failure adding an additional 2% risk.[9]

## *Endovascular-Carotid Angioplasty*

Carotid angioplasty is now being investigated as an alternative to CEA. Our current practice is to consider angioplasty for patients with recurrent stenosis (Figure 3). Endovascular techniques have not yet achieved acceptable morbidity levels to replace CEA in most cases.[26-28] In addition, the durability of the procedure has not been sufficiently evaluated. Angioplasty may become an important alternative to CEA, but further research using a randomized trial is needed.

## *Conclusions*

CEA represents a critical weapon in the physician's armamentarium to decrease the risk of stroke in patients with carotid stenosis. When performed with a low perioperative morbidity and mortality, CEA provides a well-established benefit in patients with symptomatic stenosis greater than 70%. Younger patients in good general health with high-grade asymptomatic stenoses may be considered for surgery as well, although the degree of risk reduction is much lower in this group and is nonexistent unless surgery is performed with exceedingly low complication rates.

Because the benefit to patients in both groups is realized only if the perioperative risk is low, it is important that surgeons track their individual complication rates. Only surgeons who can document morbidity and mortality rates superior to the natural history of the disease should perform the operation. Newer imaging techniques such as MRA and endovascular techniques such as carotid angioplasty should improve the evaluation and treatment of carotid stenosis, lowering morbidity and resulting in better outcomes. MM

*Eric Nussbaum is an assistant professor in the Department of Neurosurgery at the University of Minnesota, Minneapolis, and director of the Minnesota Neurovascular Institute.*

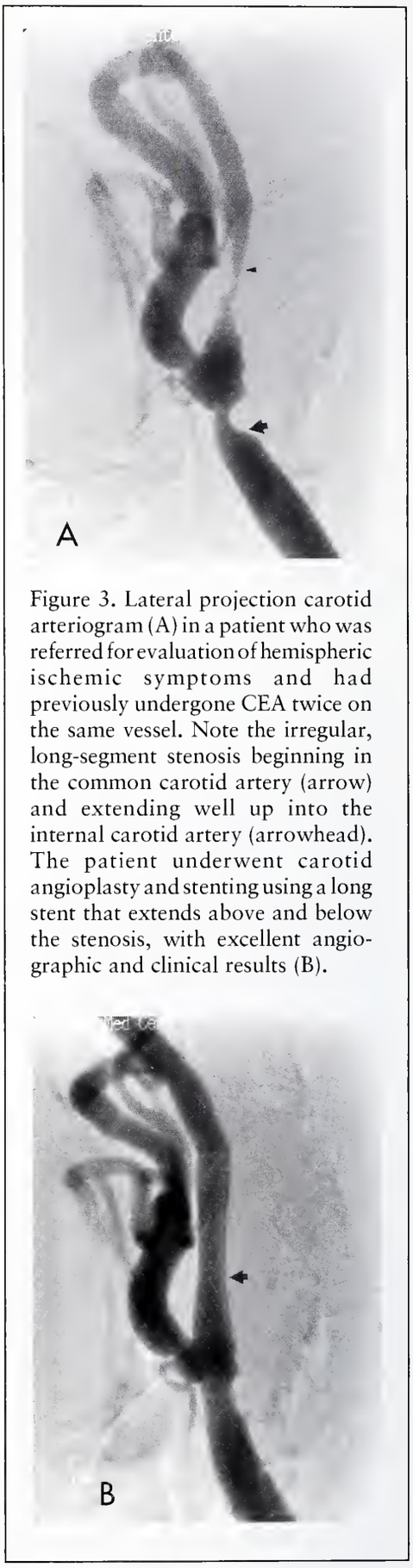



Figure 3. Lateral projection carotid arteriogram (A) in a patient who was referred for evaluation of hemispheric ischemic symptoms and had previously undergone CEA twice on the same vessel. Note the irregular, long-segment stenosis beginning in the common carotid artery (arrow) and extending well up into the internal carotid artery (arrowhead). The patient underwent carotid angioplasty and stenting using a long stent that extends above and below the stenosis, with excellent angiographic and clinical results (B).

REFERENCES

1. Mohr JP, Lee SH. Carotid disease. In: Carter LP, Spetzler RF, Hamilton MG, eds. Neurovascular surgery. New York: McGraw Hill, 1994: 263-79.
2. Fisher CM. Occlusion of the internal carotid artery. Arch Neurol Psychiatry 1951;65:346-77.
3. Eastcott HHG, Pickering GW, Rob C. Reconstruction of the internal carotid artery in a patient with intermittent attacks of hemiplegia. Lancet 1954;2:994-6.
4. Ingall JT, Homer D, Whisnant JP, et al. Predictive value of carotid bruit for carotid atherosclerosis. Arch Neurol 1989;46: 418-22.
5. Wolf PA. An overview of the epidemiology of stroke. Stroke 1990;21(9) supp II: 4-6.
6. Heyman A, Wilkinson WE, Heyden S, et al. Risk of stroke in asymptomatic persons with cervical arterial bruits. N Engl J Med 1986;302:838-41.
7. Norris JW. Head and neck bruits in stroke prevention. In: Norris JW, Hachinski VC, eds. Prevention of stroke. New York: Springer Verlag, 1991:101-12.
8. Mackey AE, Abrahamowicz M, Langlois Y, et al. Outcome of asymptomatic patients with carotid disease. Asymptomatic Cervical Bruit Study Group. Neurology 1997;48:896-903.
9. North American Symptomatic Carotid Endarterectomy Trial Collaborators. Beneficial effect of carotid endarterectomy in symptomatic patients with high-grade carotid stenosis. N Engl J Med 1991; 325:445-53.
10. Prestigiacomo CJ, Connolly ES, Quest DO. The use of carotid ultrasound as a preoperative assessment of extracranial carotid artery blood flow and vascular anatomy. Neurosurg Clin N Amer 1996; 7:577-87.
11. Mayberg MR, Wilson SE, Yatsu F, et al. Carotid endarterectomy and prevention of cerebral ischemia in symptomatic carotid stenosis. JAMA 1991;266:3289-94.
12. Ricotta JJ, Bryan FA, Bond MG, et al. Multicenter validation study of real-time (B-mode) ultrasonography, and pathologic examination. J Vasc Surg 1987;6:512-20.
13. van Everdingen KJ, van er Gron J, Kappelle LJ. Overestimation of stenosis in the internal carotid artery by duplex sonography caused by an increase in volume flow. J Vasc Surg 1998;27:479-85.
14. Howard G, Jones AM, Chambless L, et al. A multicenter validation of Doppler ultrasound versus angiogram: the ACAS experience. Stroke 1991;22:147.
15. Collier PE. Fast-tracking carotid endarterectomy: practical considerations. Seminars Vasc Surg 1998;11:41-5.
16. Sitzer M, Furst G, Fischer H, et al. Between-method correlation in quantifying internal carotid stenosis. Stroke 1993; 24:1513-8.
17. Mani RL, Eisenberg R, McDonald EJ Jr, et al. Complications of catheter cerebral angiography: analysis of 5000 procedures. I. Criteria and incidence. AJR 1978;861-5.
18. Chaturvedi S, Policherla PN, Femino L. Cerebral angiography practices at US teaching hospitals. Implications for carotid endarterectomy. Stroke 1997;28:1895-7.
19. Enochs WSS, Ackerman RH, Kaufman JA, et al. Gadolinium-enhanced MR angiography of the carotid arteries. J Neuroimaging 1998;8:185-90.
20. Brandt-Zawasdzki H, Heiserman JE. The roles of MR angiography, CT angiography, and sonography in vascular imaging of the head and neck. Am J Neuroradiol 1997;18:1820-5.
21. Barnett HJ, Taylor DW, Eliasziw M, et al. Benefit of carotid endarterectomy in patients with symptomatic moderate or severe stenosis. North American Symptomatic Carotid Endarterectomy Trial Collaborators. N Engl J Med 1998;339: 1415-25.
22. European Carotid Surgery Trialists' Collaborative Group. MRC European carotid surgery trial: interim results for symptomatic patients with severe (70-99%) or with mild (0-29%) carotid stenosis. Lancet 1991;337:1235-43.
23. Asymptomatic Carotid Atherosclerosis Study Group. Endarterectomy for asymptomatic carotid artery stenosis. JAMA 1995;273:1421-8.
24. Hannan EL, Popp AJ, Tranmer B, et al. Relationship between provider volume and mortality for carotid endarterectomies in New York State. Stroke 1998;29:2292-7.
25. Cebul RD, Snow RJ, Pine R, et al. Indications, outcomes, and provider volumes for carotid endarterectomy. JAMA 1998;279:1304-6.
26. Fisher WS, Jordan WD. Carotid angioplasty. Surg Neurol 1998;50:295-9.
27. Naylor AR, Bolia A, Abbott RJ, et al. Randomized study of carotid angioplasty and stenting versus carotid endarterectomy: a stopped trial. J Vasc Surg 1998;28:326-34.
28. Bettmann MA, Katzen BT, Whisnant J, et al. Carotid angioplasty and stenting. A statement for healthcare professionals from the councils on cardiovascular radiology, stroke, cardiothoracic and vascular surgery, epidemiology and prevention, and clinical cardiology, American Heart Association. Stroke 1998;29:336-8.

*St. Cloud, Minnesota*



Eleven board certified emergency medicine physicians in search of an additional BC/BE emergency medicine physician to serve a progressive and growing community. 1410.5 contracted hours with a longevity feature. Fair and equitable scheduling with eight- and nine-hour shifts. Central Minnesota Emergency Physicians (CMEP) is affiliated with St. Cloud Hospital, a 330-bed regional medical center. Our state-of-the-art Level II Trauma Center serves over 34,000 patients annually and provides full specialty backup. A walk-in care clinic is set to open this fall. Outstanding compensation and benefits package includes health, disability, and malpractice insurance, generous CME allowance, and retirement program. St. Cloud is a growing, family-oriented college town of 100,000 conveniently located between Minneapolis/St. Paul and prime Minnesota lake areas. Please contact Karla Donlin or Dr. Dan Fark at 800/835-6652, send or fax CV to Karla Donlin, St. Cloud Hospital, 1406 6th Avenue North, St. Cloud, MN 56303. Fax to 320/255-5711, e-mail: donlink@ centracare.com

**Physician Employment Opportunities Available at**
**Winona Clinic, Ltd.**

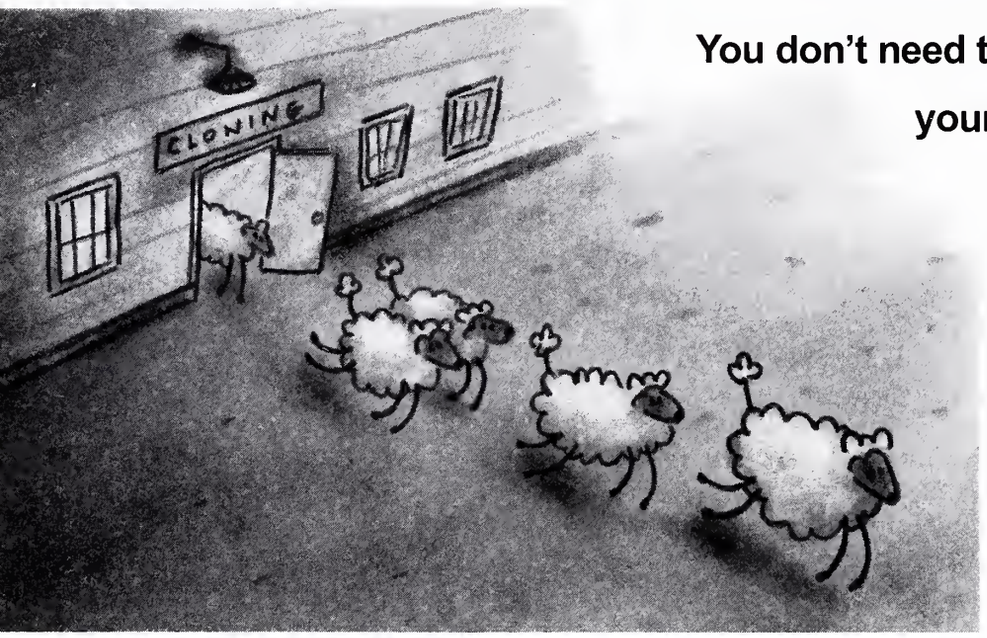
**Family Practice**
**Internal Medicine**
**Orthopedic Surgery**
**Pediatrics**

Our staff of 30+ medical providers is looking forward to welcoming you as you begin your practice at this thriving, independent, physician-owned multi-specialty clinic, located in a family-oriented community situated along the Mississippi River in the beautiful bluff country of southeastern MN.

For additional information, contact:
Administrator
Winona Clinic, Ltd.
420 East Sarnia Street
Winona, MN 55987
507-457-7722
fax 507-457-7672

# Searching for ways to put more time back into your day?

# MSBC can help.




**You don't need to resort to cloning yourself to regain control of your time commitments.**

Your colleagues have honored you by electing you to serve as an officer of your society. They respect your professionalism and leadership skills. You've got the ideas and ambition it takes to make your society an integral part of your profession. However, the thought of you and your office staff taking time away from patients to manage the day-to-day activities of your association somehow takes away the thrill of what should be a very exciting time for you. Management Services By Choice (MSBC), a program of the Minnesota Medical Association, can help. Our professional staff will work directly with you to expand, improve, or develop new programs to best serve your membership. Call 612/378-1875 or 800/342-5662 or visit our Web site for more information–www.mnmed.org/MSBC.

**MSBC offers a wide range of affordable, efficient services designed specifically to meet the administrative needs of medical societies, large and small.**

MSBC
MANAGEMENT SERVICES BY CHOICE
A PROGRAM SPONSORED BY THE MMA

# Minnesota Surveillance for Unexplained Deaths and Critical Illnesses of Possible Infectious Cause

*A public health project helps monitor new and emerging diseases by collecting data about unexplained illnesses and deaths.*

Jean Rainbow, R.N., M.P.H., Ruth Lynfield, M.D., James R. Johnson, M.D., and Richard N. Danila, Ph.D., M.P.H.

Editor's Note: *One of the greatest health advances of the past century has been the recognition and control of infectious diseases. The eradication of smallpox is a great, if often forgotten, victory. The fact that measles and polio are rare is amazing, considering the prevalence of these infectious diseases only 30 years ago.*

*But our greatest victory remains one of our greatest public health nemeses—emerging infectious diseases. When will we eradicate HIV or Hantavirus? Or even just effectively treat them to prevent death and disability? What will be the new infectious diseases of the 21st century? Will they begin in a developing country or in an overdeveloped country? How will we recognize them early? Read on to learn about one important program in the fight to conquer infectious diseases in the new millennium.*

—Barbara P. Yawn, M.D., M.Sc.
Series Editor

A 15-year-old male was admitted to a local hospital after five days of dehydration, dry cough, shortness of breath, and fever to 104°. He had been previously healthy except for acne, which was being treated with trimethoprim-sulfamethoxazole and Retin-A. He had been camping at a state park 17 days prior to admission and swimming in a lake 13 days prior to admission, but had no known unusual exposures. The physical exam was significant for shallow respirations, the respiratory rate was 28–32, and the heart rate was 110. A white blood cell count was 4,500 per µl with 61% PMNs, 16% bands, and 19% lymphocytes, and the erythrocyte sedimentation rate was 43 mm/hr. A chest x-ray revealed a left basilar infiltrate.

The patient was placed on broad-spectrum therapy (cefotaxime and erythromycin). He was transferred to a tertiary care center one week later because of increased hypoxemia and the development of bilateral interstitial infiltrates. An extensive workup, including specimens from bronchoscopy, open lung biopsy, and serum sent for numerous pathogens and etiologies, revealed nothing. During this time, the patient was placed on multiple antibiotics (including cefotaxime, tobramycin, doxycycline, trimethoprim sulfamethoxazole, vancomycin) as well as corticosteroids. However, his pulmonary function continued to deteriorate and he required maximum respiratory support, including extracorporeal membrane oxygenation. With no improvement in respiratory status, the patient died 86 days after presentation to the initial hospital. No cause for this illness was identified.

The Unexplained Deaths and Critical Illnesses Project was developed to systematically collect information and laboratory specimens on unexplained severe illnesses and deaths, such as the case described above, possibly due to infectious causes.[1,2] New diseases are often not recognized until they occur in a cluster. Legionellosis and Hantavirus pulmonary syndrome, for example, are known to have occurred sporadically before they were recognized and their etiologies determined as a result of outbreaks.[3-5] Through reporting to a centralized source, it may be possible to detect disease patterns that might otherwise go unnoticed because an institution or clinician may see only one patient with the relevant symptoms. One of the unique features of this project is the availability of new molecular- and immunologic-based tests that can assist in identifying and characterizing previously unidentifiable or difficult to identify infectious agents.

Surveillance for unexplained deaths and critical illnesses of possibly infectious cause has been under way in Minnesota since September 1995. This special project is a collaborative effort between the Minnesota Department of Health (MDH), several other surveillance sites (in Oregon, California, and Connecticut), and the Centers for Disease Control and Prevention (CDC).

To be included in the Unexplained Deaths and Critical Illnesses Project, a patient must be a Minnesota resident between the ages of 1 and 49 who was previously healthy. He or she must be critically ill or have died from an illness suggestive of an infectious etiology. If no cause has been identified following preliminary testing, and

Table 1

*Laboratory testing for respiratory syndromes*

**Pathology specimens sent to CDC**

Bronchial biopsy, open lung biopsy, or autopsy specimens sent for in situ hybridization, electron microscopy, and/or polymerase chain reaction (PCR).

**Serobanking**

Before testing begins, a portion of each specimen is serobanked so that additional testing may be performed when new technology becomes available.

**First-round testing**

Based on results of previous testing, clinical summary, and recommendations of an infectious disease consultant, a variety of tests (see Table 2) are performed using serum, blood, and bronchoalveolar lavage specimens, pleural fluid, pericardial fluid, peritoneal fluid, blood culture specimens, cerebrospinal fluid, and other specimens.

**Second-round testing**

If the first-round testing yields no conclusive findings, a second round of tests is performed. Second-round tests are selected from an exhaustive list of known respiratory pathogens and are based on exposure history. Tests include serologies and PCR for a number of specific pathogens and a 16S universal probe for bacteria. Noninfectious etiologies are also taken into consideration.

**Future testing**

Serobanked specimens will be used as new technology becomes available for cases with no conclusive findings for first- and second-round testing.

Table 2

*Selected serologies for first-round testing from individuals with a respiratory syndrome*

**Bacterial panel**
*Chlamydia pneumoniae*
*Chlamydia psittaci*
*Legionella pneumophila*
*Mycoplasma pneumoniae*

**Viral panel**
Adenovirus
Hantavirus
Influenza A
Influenza B
Parainfluenza (1-4)
Respiratory syncytial virus

**Fungal panel**
*Blastomyces dermatitidis*
*Coccidioides immitis*
*Cryptococcus neoformans*
*Histoplasma capsulatum*
*Paracoccidioides brasiliensis*

**In cases of animal exposure**
*Bacillus anthracis*
*Brucella spp.*
*Coxiella burnetti*
*Francisella tularensis*
*Leptospira spp.*
*Toxoplasma gondii*
*Yersinia pestis*

**In cases of known tick bite or outdoor exposure:**
*Ehrlichia chaffeensis*
*Ehrlichia phagocytophilia*
*Rickettsia rickettsii*
*Rickettsia typhi*

**In cases with a concomitant rash, serologies sent for tick bite pathogens as above and:**
Toxic shock syndrome toxin-1
Measles
Rubella
Varicella-zoster virus

Additional panels are available for patients with a history of foreign travel or possible exposure to bioterroristic threat.

symptoms began before hospitalization or within 48 hours of admission, the case should be reported to MDH. From September 1995 through June 1999, 107 possible cases were reported to MDH from a variety of sources, including primary physicians, infectious disease practitioners and consultants, pathologists, medical examiners, critical care nurses, family members, and friends. Of those, 25 met the criteria for enrollment. Several other cases were classified as "explained" after review of laboratory results.

Specimens for 17 of the unexplained cases have been sent to the CDC (specimens were not available for all cases). A *Streptococcus pneumoniae* ribosomal DNA sequence was detected in pleural fluid from a Minnesota case-patient who had a respiratory illness, using broad-range bacterial 16S rDNA polymerase chain reaction (PCR) assay with sequencing of the amplification product.[6,7] Using the same technology, a 16S rDNA sequence for *Neisseria meningitidis* was revealed in the cerebrospinal fluid of a case-patient from another state who had pyogenic meningitis.[8] A portion of the specimens has been retained in cases for which no etiology has been revealed so that additional testing may be done as new methods become available.

Specimens have been sent to a variety of laboratories at the CDC, including laboratories in the Division of Bacterial and Mycotic Diseases, the Division of Vector-borne Infectious Diseases, and the Division of Viral and Rickettsial Diseases. Testing has also been provided by reference laboratories outside the CDC, including the University of Minnesota, Dartmouth College, Stanford University, and the California Department of Health Viral and Rickettsial Disease Laboratory.

Patients in these cases presented with a variety of clinical symptoms. Among the most common clinical presentations were respiratory syndrome (24%), including pneumonia and acute respiratory distress syndrome; neurologic symptoms (24%); shock or sepsis (24%); and cardiac syndromes (20%), which were primarily myocarditis with suspected viral etiology.

When a case is reported to the MDH, a screening form is completed to determine whether the case is eligible to be included in the project. If the case is eligible, laboratory personnel at the referring institution are

asked to save any available specimens and others as they are collected. Serum (acute and convalescent, if available) and whole blood are desired for all cases. Additional specimens are gathered based on the presenting syndrome (for example, cerebrospinal fluid should be saved when neurologic symptoms are noted). If preliminary tests are negative or inconclusive, specimens are banked at MDH until the medical records can be reviewed. An example of the panel of tests performed in cases of acute respiratory syndromes is seen in Tables 1 and 2. A clinical summary and recommendations for testing are forwarded to the CDC with a portion of the specimens. While most specimens are sent following the patient's hospitalization, arrangements can be made to send pathology specimens directly to the CDC at any time. As they become available, CDC test results are forwarded to the reporting physician and the primary physician. It may take several months or longer to complete testing.



*The Minnesota Department of Health has produced this poster to promote awareness of the Unexplained Deaths and Critical Illnesses Project. To request a free copy of the 11.5" by 16" poster, call the department, 612/676-5414.*

Minnesota Statutes 4605.7000–4605.7075 mandate reporting of cases of unexplained death or critical illness that might have been caused by an infectious agent in a previously healthy individual between the ages of 1 and 49. Data confidentiality is maintained in accordance with the law.

With your help, we may be able to determine the causes of some illnesses similar to the one in the case described and may prevent such cases from occurring in the future. For more information about the project or to report a possible case, please call 612/676-5361. MM

*James Johnson is an infectious disease specialist at the VA Medical Center in Minneapolis and serves as a consultant for the Unexplained Deaths and Critical Illnesses Project. Richard Danila, acting state epidemiologist; Ruth Lynfield, supervisor of the HIV and Emerging Infections Unit; and Jean Rainbow, a clinical nurse specialist in the HIV and Emerging Infections Unit, are from the Minnesota Department of Health.*

REFERENCES

1. Perkins BA, Flood JM, Danila R, et al. Unexplained deaths due to possibly infectious causes in the United States: defining the problem and designing surveillance and laboratory approaches. Emerg Infect Dis 1996;2:47-53.
2. Centers for Disease Control and Prevention. Addressing emerging infectious disease threats: a prevention strategy for the United States. Atlanta: U.S. Department of Health and Human Services, Public Health Service, 1994.
3. McDade JE, Brenner DJ, Bozeman FM. Legionnaires' disease bacterium isolated in 1947. Ann Intern Med 1979;90: 659-61.
4. Osterholm MT, Chin TDY, Osborne DO, et al. A 1957 outbreak of Legionnaires' disease associated with a meat packing plant. Am J Epidemiol 1983;117: 60-7.
5. Centers for Disease Control and Prevention. Hantavirus pulmonary syndrome—United States, 1993. MMWR 1994;43:45-8.
6. Nikkari S, Passaro D, Danila R, Relman DA. Unexplained deaths and critical illnesses caused by infectious causes—solving the unsolved with broad-range rDNA amplification. Interscience Conference on Antimicrobial Agents and Chemotherapy, San Francisco, September 26–29, 1999.
7. Fredricks, DN, Relman DA. Application of polymerase chain reaction to the diagnosis of infectious diseases. Clin Infect Dis 1999;29:475-486.
8. Lopez F, Relman DA, Cieslak PR, Ladd-Wilson S, Perkins BA, Unexplained Illness Working Group. An application of broad-range bacterial 16S rDNA consensus PCR in the unexplained illnesses and deaths of possible infectious cause project. International Conference on Emerging Infectious Diseases, Atlanta, March 9–11, 1998.

# The High Cost of Progress

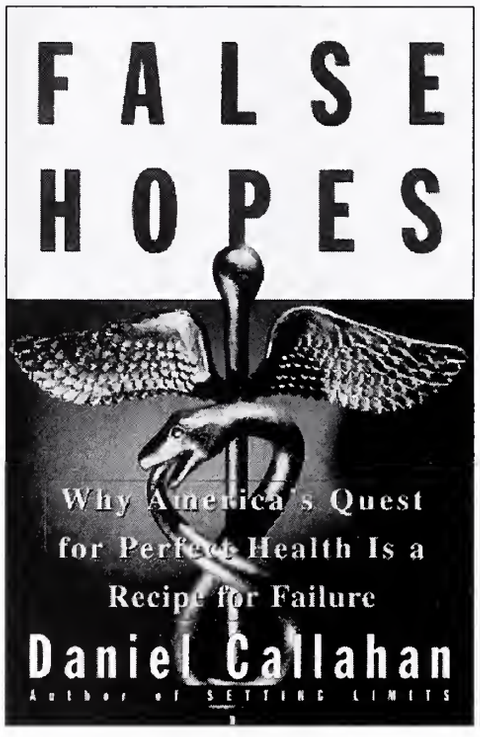
*In "False Hopes: Why America's Quest for Perfect Health Is a Recipe for Failure," an ethicist challenges Americans to accept the limits of technology and support "sustainable medicine."*

Reviewed by Charles R. Meyer, M.D.

Daniel Callahan doesn't look like a radical. His bespectacled, friendly visage on the dust jacket of "False Hopes: Why America's Quest for Perfect Health Is a Recipe for Failure" (Simon & Schuster, 1998) calls to mind Robert Young more than Abbie Hoffman. Yet the ideas he lays out in "False Hopes" are at least dramatic, if not radical. This Hastings Center ethics guru challenges us to look past superficial fixes to the nation's health care crisis, such as innovative HMOs or payment schemes, to something far scarier: what we want as a society.

Callahan begins his analysis with a discussion of limits. Everybody acknowledges that money is limited. Many people accept that care must be limited. But Callahan takes the radical leap to contend that technology and science also should have limits. He argues that medical science has reached formidable obstacles to further extending average life span. He notes that neither chronic nor infectious disease is going away. He dismisses the touted "compression of morbidity" (longer life with short terminal illnesses) as a dream and the genetic revolution's promise of molecular explanations for all disease as unlikely:

"There is no reasonable likelihood either that medical progress will usher in a dramatic new era of human health, or that there will be gains in the 21st century comparable to those made in the 20th. The gains that medicine will achieve will be incremental, expensive, and erratically distributed among individuals and groups rather than general in their impact."




Questioning technology and progress is a perilous task in a society that sanctifies Edisons and Sharper Image gadgets. Doctors love technology for its promise of immediate, certain results. Hospital administrators and entrepreneurs love technology because it sells in the marketplace. Patients love technology because it provides clear diagnoses and snappy procedures. Like partners in a dysfunctional love match hoping that tomorrow will be different, all of society hopes that the next new technology will save rather than cost money.

But it won't, says Callahan. The history of medical technology shows again and again that even if new devices save hospital days or workup time, the devices are used more often as unit costs go down, and easier procedures are used on more people. New medical technologies are additive, not substitutive.

Callahan argues for a new approach to technology evaluation. Not all effective therapies need be used on all potential candidates. He proposes that we acknowledge that new technologies increase costs and that we insist that innovations be validated by rigorous standards such as evidence-based medicine before being introduced into the marketplace. Reaching those standards will require not only a scientific but also a moral assessment. "Whether a 1 percent reduction in risk of death, but with increased side hazards and at a high cost, is 'worth it' or not is a moral and economic question, not to be answered by the medical data alone or by better data," Callahan writes. Most outcome studies don't wrestle with the moral reckoning.

The current American approach to technology is not sustainable, financially or psychologically. Escalating debt is the price of blank-check technology. The psychological consequences are disappointment and frustration.

*Progress* continued on page 57

**There could be something missing in the Minnesota Medical Association**

# You

**Now Is the Time to Renew Your Membership for 2000**

**Membership renewal materials for the year 2000 are in the mail.**

**If you haven't already done so, renew your membership today to ensure continuity of benefits and services.**

The MMA membership department will be glad to assist you in renewing your 2000 membership.

Call 800/DIAL MMA or 612/378-1875 to renew your membership by phone or to have renewal materials faxed to you.

**Save time. Renew today.**

MMA
MINNESOTA MEDICAL ASSOCIATION
MEDICINE'S VOICE IN MINNESOTA




## *Convenient, money-saving services just a click away at*

# www.mnmed.org/mmbr

*MMBR is your One-Stop Shop for value and convenience.*
*We invite you to visit the MMA/MMBR web site where you can:*

- Explore how you can offer credit union membership to your employees.
- Shop and compare the best term life insurance rates.
- Find information on work-site financial educational programs.
- Find information on retirement plan programs for your practice.
- Obtain group purchasing program benefits.
- Find specialized medical transportation services.
- Shop for autos, SUVs and vans for purchase or lease.
- Save up to 75% off frequently ordered office products.
- And much more!

*Contact us by e-mail at mmbr@mnmed.org*
*or call us at 612-623-2860 or 800-298-6627*

**MMBR**

Minnesota Medical Business Resources
Owned By MMA & HMS

## *Progress* *continued from page 54*

If progress is always the goal, what is achieved is never enough, Callahan says: "An infinitely manipulatable nature, worked on by an innovation-loving market, which is undergirded by a political philosophy that has disavowed a discovery of human ends, offers not a shred of possibility for psychological sustainability." Our current health care policy is forged from the clash between manipulating and respecting nature, pursuing health and accepting illness, promoting public obligation and accepting personal responsibility, seeking personal choice and tolerating imposed limits, chasing progress and living with a sustainable medicine.

A "sustainable medicine" is possible, according to Callahan, if society sets priorities. Topping his list is nonabandonment of the patient, followed by public health measures, primary and emergency care, and last, high-tech interventions. A health benefit that is "good enough" could balance individual and population needs. He proposes hard-nosed policies on infertility (less spending), aging (limits on life-sustaining technologies), and AIDS (more funds invested in AIDS prevention, with limited funds for those who contract the disease). And, as a good ethicist, he grapples with the ethical consequences of his proposals.

It's not a rosy future Callahan paints, nor are his solutions easy. But previous radicals like Gandhi or Jefferson weren't offering comfort either. Medicine and its reformers would do well to read "False Hopes." MM

*Charles Meyer is editor-in-chief of* Minnesota Medicine *and an internist with Consultants–Internal Medicine in Minneapolis.*

## *Editor's Note* *continued from page 2*

Direct-to-consumer pitches command an increasing chunk of drug advertising budgets—although physicians still take the flak. Every week, patients come to us demanding a particular drug that is sure to solve their ailments. And they have the advertisement to prove it.

Who is going to win this drug war is unclear. But it is clear that drug prices cannot continue on their current climb and that drug companies spend too much on gimmicks, gladhanding, and gadgets hawking their products. It is clear that many new drugs change the face of medical practice. H-2 blockers like ranitidine and, now, proton pump inhibitors like omeprazole have made surgery for peptic ulcer disease an all but lost art. It is clear that many new drugs, like $10-a-pill Viagra, cloud coverage decisions. Is impotence a disease?

It is also clear that with national elections looming, drug companies are prime targets for further political attacks. They're big. They're rich. And the patient shoulders a larger portion of the cost of their products than they do with most other health care treatments. We're a long way from seeing the end of this battle. MM

. . . . . .

*–Charles R. Meyer, M.D., Editor-in-Chief*

**You can make a difference in Minnesota's political future!**

**Attend the Legislative Summit 2000!**

MMA
MINNESOTA MEDICAL ASSOCIATION
Legislative Summit 2000

See the ad on page 9 for more details.

MAYO CLINIC
ACADEMIC GENERAL INTERNISTS;
CLINICIAN-INVESTIGATORS IN INTERNAL MEDICINE

The Division of Area General Internal Medicine, Mayo Clinic, Rochester, Minnesota, is seeking Board-certified internists to join its staff. Training beyond residency or experience in an academic environment is essential; completion of a general internal medicine fellowship is preferable. Preference will be given to those applicants with established research programs and extramural funding.

The Division has 21 full time academic internists with interest in clinical research, health outcomes research, medical informatics, medical education and practice guidelines development. The Division provides a cohesive, collegial, intellectually stimulating, supportive and secure environment at one of the nation's premier academic institutions.

Significant protected time will be available for candidates with proven research productivity. Established programs exist for startup funding of new research initiatives. Educational responsibilities include the mentoring of clinical research fellows, and the teaching of fellows, residents and medical students in inpatient and outpatient settings. Clinical responsibilities include consultative care in internal medicine in outpatient and inpatient settings. Send curriculum vitae and cover letter to:

Robert M. Cuddihy, M.D.
Mayo Clinic
200 First Street SW
Rochester, MN 55905

mayo

*Mayo Foundation is an affirmative action and equal opportunity employer and educator.*

# GROUP PURCHASING



Brought to you by a partnership of

## Minnesota Medical Business Resources and Triium, Inc.

### Product and Service Coverage

- Office Supplies and Furniture
- Office Equipment
  Copiers, facsimiles, scanners, and more
- Medical Supplies
- Medical Equipment and Equipment Repair
- Employee Recruitment Services
- Individual Insurance Programs
  Life, health, long-term care, disability
- Employer-Sponsored Retirement Plans
- Printing Services
  Forms, statements, mailing services, and more
- Color-Coded Record Systems
- Promotional Merchandise
- Collection Services
- Cellular Phone Equipment and Air Time
- Auto Leasing and Purchasing Services
- Payor Reimbursement
  Auditing & Consulting
- Credit Union Services
- Secured Records Destruction
- Courier Services
- Payroll Processing Services

### Group Purchasing Advantages

Group Purchasing provides customers with a comprehensive purchasing program encompassing a large variety of services and products that supports physician practices' outsourcing needs. The goal of the program is to ensure customers receive excellent pricing and superior performance in all products and services offered.



### Group Purchasing Benefits

The Group Purchasing Program has experienced an average of **15%** savings for its customers. Other benefits of the Group Purchasing Program include negotiation and administration of supplier contracts, continual expansion of suppliers and services offered, volume and cost savings reporting for the individual practice, customer advocacy with suppliers, and dedicated, professional purchasing management.

TRIIUM, INC.

*Advancing Health Care with Data-Driven Solutions*

Call 612/797-0285 x109
e-mail: kmadsen@mspnetwork.com
internet: www.triium.com

MMBR
MINNESOTA MEDICAL BUSINESS RESOURCES
OWNED BY MMA & HMS

**Minnesota Medical Business Resources**
Call 612/623-2860
e-mail: mmbr@mnmed.org
internet: mnmed.org/mmbr

# *A Calendar of Continuing Medical Education Courses*

*Provided as a service of the MMA Committee on Accreditation and CME.* For assistance with scheduling meetings or for information on future medical meetings and CME courses, please contact the MMA office: 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; 612/378-1875. For a complete listing of our calendar, visit the MMA Web site at www.mnmed.org. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

## JANUARY 2000

Jan. 10-14 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Jan. 10-14 **Bone and Tissue Tumors** Mayo Foundation; Maui, HI. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Jan. 21 **Rheumatology Conference** St. Mary's/Duluth Clinic Health System; Duluth Entertainment Convention Center, Duluth, MN. CONTACT: Catherine Koski, Medical Education Coordinator, 400 East Third Street, Maildrop 5AV2ME, Duluth, MN 55805; 218/725-3854.

Jan. 23 **MMA Legislative Summit 2000** Minnesota Medical Association; The Northland Inn, Brooklyn Park, MN. CONTACT: Wendy O'Donnell, Minnesota Medical Association, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413; 612/378-1875 or 800/342-5662.

## FEBRUARY 2000

Feb. 5-12 **HealthEast Winter Medical Seminar 2000** HealthEast; Melia Azul Ixtapa, Ixtapa, Mexico. CONTACT: Annette Anderson, 1700 University Avenue West, St. Paul, MN 55104; phone: 651/232-5104.

Feb. 7-11 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Feb. 7-11 **Neurology in Clinical Practice** Mayo Foundation; Maui Prince Hotel at Makena Resort, Makena, Maui, HI. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Feb. 24-26 **Mayo Clinic State-of-the-Art Symposium: Arrhythmia Management** Mayo Foundation; Silverado Resort, Napa, CA. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Feb. 24-Mar. 2 **Winter Medical Conference** Minnesota Medical Association and Ramsey/Hennepin Medical Societies; Gala Resort Playacar, Mexican Riviera, Playa Del Carmen, Quintana Roo, Mexico. CONTACT: Roger Johnson, Ramsey Medical Society, P.O. Box 131690, St. Paul, MN 55113; 612/362-3799.

Feb. 27- Mar. 3 **Brain to Pelvis: 2000—The Seventh Conference** University of Minnesota; Pines Lodge, Beaver Creek, CO. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

Feb. 29-Mar. 3 **Whitefish 2000: Timely Issues for the New Millennium** University of North Dakota School of Medicine and Health Sciences and MeritCare Health System; Grouse Mountain Lodge, Whitefish, MT. CONTACT: Whitefish Conference Hotline, 701/234-6913, or e-mail (whitefishconference@meritcare.com).

## MARCH 2000

Mar. 1-2 **Geriatric Drug Therapy** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Educa-

**Central Plains Clinic, Sioux Falls, South Dakota**

110+ physician multi-specialty group is in need of BE/BC physicians in allergy, dermatology, endocrinology, family practice, gastroenterology, general surgery, hematology/oncology, internal medicine, non-interventional cardiology, nephrology, neurology, obstetrics, pediatrics, pulmonary, physiatry, radiology and urology.

With locations in Sioux Falls, Rapid City and Watertown, SD, Central Plains Clinic offers a competitive salary and benefits package with early partnership. Practice locations offer excellent clinic and hospital facilities, medical school teaching options.

**For more information, please contact:**
**David Rossing, MD, Medical Director**
**Central Plains Clinic**
**1100 E. 21st Street**
**Sioux Falls, SD 57105**
**Telephone: 605-331-3490**
**Fax 605-330-6555**

Multicare Associates of the Twin Cities, a multispecialty/multi-location clinic, located in the northern suburbs of Minneapolis/St. Paul, has available positions for BC/BE physicians in the following departments:

## Family Practice

## OB/GYN

Excellent salary/benefits package includes paid insurance, flexible benefits plan, 401K, profit sharing, continuing medical education. Shareholder status potential after one year.

Contact Jeannine Schlottman
Administrator
7675 Madison St. NE
Fridley, MN 55432
612/785-3338

MULTICARE ASSOCIATES OF THE TWIN CITIES

## $30,000 BONUS OFFERED TO HEALTH CARE PROFESSIONALS

If you are a board-certified physician or a candidate for board certification in one of the following specialties, you may qualify for a bonus of up to $30,000 in the Army Reserve.

| | |
|---|---|
| Anesthesiology | Orthopedic Surgery |
| General Surgery | Colon-Rectal Surgery |
| Neurosurgery | Diagnostic Radiology |
| Cardiothoracic Surgery | Family Physician |
| Peripheral Vascular Surgery | Emergency Medicine |
| Urology | Internal Medicine |

A test program is being conducted which offers a bonus to eligible physicians who join the Army Reserve. You would receive a $10,000 bonus for each year you serve as an Army Reserve physician—for a maximum of three years.

You may serve near your home, at times convenient for you, or at Army medical facilities in the United States and abroad. There are also opportunities to attend conferences and participate in special training programs, such as the Advanced Trauma Life Support Course.

To learn more about the Army Reserve and the Bonus Test Program, call one of our experienced Medical Personnel Counselors:

800-235-8159

**ARMY RESERVE. BE ALL YOU CAN BE.®**

## CentraCare Clinic *is a progressive and growing 108-physician multi-specialty clinic with 9 Central Minnesota sites. Our clinics offer a comprehensive income and benefits package and are conveniently located between the Twin Cities and prime Minnesota lakes area. Central Minnesota offers an outstanding lifestyle with quality schools and abundant recreational activities. CentraCare Clinic is currently recruiting for the following locations:*

### CENTRACARE Clinic River Campus

*Join an exceptional 65-physician specialty clinic which currently has openings in the following specialties:*

- Allergy
- Internal Medicine *St. Cloud/Little Falls*
- Dermatology
- Neurology
- Neurosurgery
- Gastroenterology
- Pediatric Intensivist
- Infectious Disease
- Rheumatology
- Non-Interventional Cardiology

### CENTRACARE Clinic Heartland

*Join an experienced 6-physician clinic with an opening in:*

- Family Practice Physician who practices Obstetrics

### CENTRACARE Clinic Women & Children's Center

*Join an exceptional 21-physician clinic specializing in pediatrics and obstetrics/gynecology which currently has openings in the following specialties:*

- Allergy
- Pediatrics
- Obstetrics/Gynecology
- Obstetrics specializing in Endocrinology & Reproductive Health

*For further information, please call or write:*

***Karla Donlin***
***Kristine Cunningham***
*Physician Recruiters*

*1406 Sixth Avenue North*
*St. Cloud, MN 56303*
***1-800-835-6652***

*Not a health care profession shortage area.*

**CENTRACARE Clinic**

tion, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

Mar. 3 **Prevention and Management of Atherosclerotic Diseases** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

Mar. 6-10 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Mar. 17 **Women's & Children's Health Conference** St. Mary's/Duluth Clinic Health System; Duluth Entertainment Convention Center, Duluth, MN. CONTACT: Catherine Koski, Medical Education Coordinator, 400 East Third Street: Maildrop 5AV2ME, Duluth, MN 55805; 218/725-3854.

Mar. 24 **Reclaiming the Soul of Medicine: A Practical Approach to Spirituality and Patient Care** Minnesota Medicial Association; Augsburg College, Minneapolis, MN. CONTACT: Augsburg College, Department of Continuing Studies, CB #47, 2211 Riverside Avenue, Minneapolis, MN 55454; 612/330-1406.

Mar. 27-31 **Selected Topics in Internal Medicine** Mayo Foundation; The Westin Resort, Hilton Head Island, SC. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

APRIL 2000

Apr. 3-7 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Apr. 7 **Cardiac Arrhythmias** University of Minnesota; Earle Brown Heritage Center, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

Apr. 13-14 **Spring Refresher** Minnesota Academy of Family Physicians; Radisson Hotel, St. Paul, MN. CONTACT: Minnesota Academy of Family Physicians, 600 S. Highway 169, Suite 1680, St. Louis Park, MN 55426; 612/542-0130 or 800/999-8198.

Apr. 13-15 **Upper Extremity Trauma: New Directions for the 21st Century** Mayo Foundation; Pointe Hilton Resort at Squaw-Peak, Phoenix, AZ. CONTACT: Registrars, Mayo

**CAMDEN PHYSICIANS, LTD.**

**PRACTICE OPPORTUNITY FOR FAMILY PHYSICIANS AT 3 SITES IN NORTHWEST METRO AREA:**

CAMDEN OFFICE
4209 Webber Pkwy.
Mpls., MN 55412

FOUR SEASONS
9750 Rockford Rd.
Plymouth, MN 55442

GROVE SQUARE
13800 - 83rd Way
Maple Grove, MN 55369

Camden Physicians, Ltd., is a growing, independent, physician-owned family practice single specialty group. A competitive salary with excellent benefits and partnership opportunities are offered.

Please contact or send CV to:

William Youmans, M.D. (612-522-6601)
and/or
Edwin A. Olson, Administrator (612-559-0092)

**CAMDEN PHYSICIANS, LTD.**
**9800 ROCKFORD ROAD, SUITE 100**
**PLYMOUTH, MN 55442**
**FAX: 612-559-9404**

Camden PHYSICIANS LTD.

ASPEN Medical Group

Aspen Medical Group is a 160+ provider multi-specialty group with 9 clinics located throughout the Minneapolis/St. Paul metro area. We are currently seeking BE/BC physicians for the following specialties:

*Internal Medicine*
*Urgent Care*

Aspen Medical Group is governed by its own physicians and health care providers. Guaranteed base salary available for the first two years. Competitive benefits package.

For further information, plase contact:

Nancy Borgstrom, Provider Services Coordinator
1020 Bandana Boulevard West
Saint Paul, MN 55108
651-641-7081
fax 651-641-7151
e-mail nborgstr@aspenmed.org

EOE. No J-1 opportunities available.

Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Apr. 14-15 **Annual Ophthalmology Course** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

Apr. 28-29 **Annual Meeting of the North Central Chapter Infectious Diseases Society of America** North Central Chapter Infectious diseases Society of America; Accreditation Sponsor: University of Minnesota; Sheraton Inn Airport Minneapolis/St. Paul, MN. CONTACT: Margaret L. Simpson, M.D., HCMC, 701 Park Avenue, Minneapolis, MN 55415-1829; 612/347-2981 or Mary Majerus, 1707 75th Street NW, Rochester, MN 55901; 507/284-3989.

MAY 2000

May 1-5 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.


**Emergency Medicine Opportunities**

**Emergency Practice Associates** provides quality emergency physician services. Our physicians work as independent contractors in a growth-oriented, physician-supported environment.

***full time opportunities***

| | |
|---|---|
| *GRAND RAPIDS, MN* | **Itasca Medical Center**<br>Medical Director and Staff Physician |
| *HIBBING, MN* | **University Medical Center–Mesabi**<br>Staff Physician |
| *LITTLE FALLS, MN* | **St. Gabriel's Hospital**<br>Staff Physician |
| *NEW ULM, MN* | **New Ulm Medical Center**<br>Medical Director and Staff Physician |

***part time opportunities***

| | |
|---|---|
| *AITKIN, MN* | **Riverwood Health Care Center** |
| *CROSBY, MN* | **Cuyuna Regional Medical Center** |
| *ST. PETER, MN* | **Community Hospital & Health Center** |

EMERGENCY PRACTICE ASSOCIATES
BOX 1260
WATERLOO, IA 50704
FAX: 319-236-3644

**Call the recruiting specialist today at 1-800-458-5003**
www.epamidwest.com

***Dermatology, General Surgery, Internal Medicine, Otolaryngology and Pediatrics***

There are immediate openings at Brainerd Medical Center for the following specialties: Dermatology, General Surgery, Internal Medicine, Otolaryngology, and Pediatrics.

Brainerd Medical Center, P.A.
- 40-Physician independent multi-specialty group
- Located in a primary service area of 50,000 people
- Almost 100% fee-for-service
- Excellent fringe benefits
- Competitive compensation
- Exceptional services available at 162-bed local hospital, St. Joseph's Medical Center

Brainerd, Minnesota
- Surrounded by the premier lakes of Minnesota
- Located in central Minnesota less than 2 1/2 hours from the Twin Cities, Duluth and Fargo
- Large, very progressive school district
- Great community for families

Call collect to Administrator:
- Curt Nielson
(218) 828-7105
or (218) 829-4901
2024 South 6th Street
Brainerd, MN 56401

BMC



*ALEXANDRIA CLINIC, P. A.*

The Alexandria Clinic, P.A., is a 32-physician multispecialty group currently recruiting additional physicians in the following specialties:

- DERMATOLOGY
- ENT
- FAMILY PRACTICE
- GENERAL SURGERY
- INTERNAL MEDICINE
- NEPHROLOGY
- OPHTHALMOLOGY

First-year salary guarantee with production bonus, second-year partnership. Excellent contract benefits. If interested in joining a young, growing organization located in beautiful lakes area community, please contact:

Administrator
Alexandria Clinic, P.A.
610 30th Ave. W., Alexandria, MN 56308
320•763•5123

Clear blue skies, fresh air, wide-open spaces and clean lakes await you. MeritCare Medical Group is seeking talented, energetic physicians to join thriving, diverse practices.

MeritCare Health System is the premiere Health System between Minneapolis and Seattle, MeritCare Medical Group is a 350-physician multi-specialty group with a strong primary care base and MeritCare Hospital is a 354-bed tertiary/trauma hospital. Fargo-Moorhead is a tri-college community of 160,000 with excellent public and parochial schools and a park department that provides activities for all age groups year round.

We are seeking BC/BE physicians in the following specialties:

**Anesthesiology**
**Invasive, non-interventional Cardiology**
**Dermatology**
**General Surgery**
**Hematology/Oncology**
**Internal Medicine** (Bemidji, MN)
**Kidney Transplant Surgery**
**Neonatology**
**Neurosurgery**
**Otolaryngology**
**Obstetrics/Gynecology** (Fargo & Detroit Lakes, MN)
**Pediatrics**
**Adult Psychiatry**
**Child/Adolescent Psychiatry**
**Interventional Radiology**
**Reproductive Endocrinology**

Contact Kathleen Toft, Physician Recruiter, 737 Broadway, Fargo, ND 58123 or call 1-800-437-4010 or fax vitae to 701-234-2316. My e-mail address is kathetoft@meritcare.com or check our web site at www.meritcare.com

**MeritCare Medical Group**
EOE/AA Employer
(not a J-1 waiver opportunity)

*First Call Physicians, Inc.*
*A Locum Tenens Service*
*500 Eighth Ave. S.*
*Buffalo, MN 55313*

**Clinics/Hospital** | **Physicians**

*Locums Coverage*
=
*Revenue*

- Patients falling through the gaps?
- Physician burn-out or illness?
- Shortage of physicians?

- Earn more with less time.
- No administrative headaches.
- Malpractice premium paid.

*Experience, Service, Honesty*
*Call (metro) 682-3852*
*(toll free) 888-682-3852*

*(You'll be glad you did!)*

## Occupational and Environmental Medicine Physicians

HealthPartners, one of the largest health care organizations in the Midwest, is seeking team-oriented BC/BE Occupational and Environmental Medicine physicians with excellent communication and clinical skills.

Through our system-wide program, you will consult with client companies and work with injury/special evaluation clinics in St. Paul, Minneapolis and surrounding suburbs. You will be part of a program that includes our Occupational and Environmental Medicine residency program.

For consideration, forward your CV and cover letter to: HealthPartners, Physician Services, Attn: Sandy Lachman, P.O. Box 1309, Minneapolis, MN 55440-1309. FAX: (612) 883-5395. For more information, call (612) 883-5338 or email: sandy.j.lachman@healthpartners.com. EO/AA Employer

**HealthPartners®**
*Medical Group & Clinics*

*HealthPartners' mission is to improve the health of our members and our community*

???

**Is your practice on the Web?**

**We can help!**

- Free directory listing
- Low cost websites
- Download forms
- Lower overhead
- Your net location

**www.mnhealthlink.com**

**Come visit us and be a part of the Healthcare Internet!**

# *Physician Opportunities and Miscellaneous Listings*

***Classified rates are $2.50 a word (300-word maximum). Minimum monthly charge is $50; with box number $5 additional. Ads will not be accepted by phone. (Effective January 2000, the rates will be $2.50 a word for all new ads.)***

- Placement of ads must be made six weeks before the date of publication, e.g., January 15 for March ad. Please send ad requests to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; or by fax, 612/378-3875; or e-mail, mm@mnmed.org
- The publisher reserves the right to decline or withdraw advertisements. The publisher is not responsible for clerical or typographical errors and is not permitted to divulge the identity of advertisers who have replies sent to box numbers.
- Cancellation of ads must be made by the first of the month preceding month of issue.

---

**Mankato Clinic, Ltd.,** is seeking additional BC/BE physicians in the following specialties: occupational medicine, dermatology, gastroenterology, pulmonary medicine, radiology, and urgent care. The Mankato Clinic is a 70-physician multispecialty group practice in south-central Minnesota with a trade-area population of 250,000+. Guaranteed salary first year, incentive thereafter with full range of benefits and liberal time off. For more information, call Dr. Bryon C. McGregor, Medical Director, or Roger Greenwald, Executive Vice President, 507/625-1811, or write PO Box 8674, Mankato, MN 56002-8674. (*10/98-R)

---

**Urgent Care Physicians:** Independent group seeking part-time/full-time physicians to staff our urgent care facilities in Bloomington, Burnsville, Edina, and Lakeville. Contact the director of support services, 612/985-8931, or send inquiries to Quello Clinic Ltd., 7801 East Bush Lake Road, Suite 300, Bloomington, MN 55439. (*6/98-R)

---

**Family Physicians:** Independent, well-established suburban FP group seeking part/full-time FPs who like doing OB and full FP services. Clinics in Bloomington, Burnsville, Edina, Eden Prairie, Lakeville, and Savage. Excellent call schedule. Contact: Medical Director at 612/985-8922 or write Quello Clinic Ltd., 7801 East Bush Lake Road, Suite 300, Bloomington, MN 55439. (*7/98-R)

---

**Olmsted Medical Center** is seeking BC/BE physicians in family medicine, emergency medicine, and dermatology to join our 75-physician multispecialty group. Great opportunity for well-trained physicians to join a family-friendly group in a dynamic, progressive practice. In addition to its main office and hospital in Rochester, the Olmsted Medical Center system includes 11 branch office locations in southeastern Minnesota. Excellent salary and benefits, including health benefits, malpractice, spending accounts, educational funds, profit sharing, 401K/403B, and relocation assistance. Send CV to Lois Till-Tarara, Olmsted Medical Center, 1650 Fourth Street SE, Rochester, MN 55904; 507/287-2430. Fax: 507/285-8973. (*3/99-R)

---

**Falls Medical Search Seeks Physicians** for practice opportunities locally and nationally. To explore new practice options confidentially, send your CV or call Pat Falls, Falls Medical Search, 34 Forest Dale Road, Minneapolis, MN 55410; 612/922-0207 or 800/383-8916. (*5/92-R)

---

**Fairview Health Services:** Practice opportunities in urban, suburban and rural locations. Please contact Fairview Physician Recruitment and Retention at 612/672-2288, 800/842-6469, fax: 612/672-2986, e-mail: recruit1@fairview.org or visit our Web site at www.fairview.org/recruitment. (1/00-R)

---

**BC/BE Internist:** Outstanding opportunity for well-trained individual interested in balancing personal values and professional endeavors. Seeking a seventh BC/BE general internist to join a 38-physician multispecialty group. Visit www.lrhc.org. Excellent salary/benefits package includes guaranteed salary the first year with full partnership after one year. For confidential information on this opportunity, contact David T. Bjork, M.D., Bruce E. Money, M.D., or Jim Wilkus, Administrator, 615 South Mill Street, Fergus Falls, MN 56537, 218/739-2221. EEO/AA. 3-3/00

---

**Family Physicians:** Large, independent, multispecialty clinic with primary care base located in northwest quadrant of Twin Cities seeks part/full-time family physicians. Admit to only one hospital (North Memorial). Option to do OB. Contact: Tom Harrer, North Clinic, 612/520-7964. 4-3/00

---

**OB/GYN, General Surgeon, Pediatrician, and Ophthalmologist:** BC/BE to join progressive 37-physician multispecialty group practice. Rural setting with metropolitan practice style, 25 miles from Minneapolis. Group has excellent reputation and large geographical referral area. Recently expanded facility is adjacent to newly remodeled 110-bed hospital. Comprehensive benefit package with excellent remuneration. Interested physicians should contact Joseph E. Van Kirk, M.D., Lakeview Clinic Ltd., 424 State Highway 5 West, Waconia, MN 55387. 612/442-4461. AA/EOE. 3-2/00

---

**Fergus Falls Medical Group, P.A.:** The Fergus Falls Medical Group is expanding its 38-physician multispecialty clinic and is seeking physicians in the following specialties: dermatology, family practice, internal medicine, ob/gyn, ophthalmology, optometry, and orthopedics. Excellent

salary/benefits package includes guaranteed salary the first year with full partnership after one year. For confidential information on this opportunity, contact David T. Bjork, M.D., or Jim Wilkus, Administrator, 615 South Mill Street, Fergus Falls, MN 56537, 800/247-1066. EEO/AA. 3-3/00

---

**Internal Medicine:** Independent, well-established internal medicine practice with four internists seeking BC/BE internist to join Southdale Internal Medicine. Interested physicians should contact Karen Rotunda, Administrator, 6545 France Avenue S, Suite 225, Edina, MN 55435, 612/920-2697. 6-1/00

---

**Emergency Medicine:** Part-time emergency physicians needed at Lakeview Hospital in Stillwater, Minnesota. 9,000 patients a year, low acuity, excellent backup and compensation. Great opportunity for emergency medicine or family practice residents to pick up added income and experience. Contact Thomas Monahan, M.D., Stillwater Medical Group, P.A., 651/439-1448, ext. 231. 4-2/00

---

**IHS Medical** is looking for a part-time M.D. for White Bear Lake location. Competitive salary and benefits. Please call doctor's private line: 612/386-6908. (9/99-R)

---

**Internal Medicine:** Bloomington Lake Clinic seeks a BC/BE general internist to join our existing department. We are a multispecialty group formed in 1930 that is owned and governed by its own physicians. We have purposely not aligned with any one health plan or hospital system. We offer a minimum guaranteed salary the first two years with a full range of benefits and the opportunity for ownership. Please contact or send CV to: John R. Bjorklund, M.D., President, or Robert Vogel, Administrator, at 3017 Bloomington Avenue South, Minneapolis, MN 55407; 612/721-6511. Fax: 612/721-0239. 3-3/00

---

**Primary Care:** Unique opportunities in beautiful northern Minnesota to practice real medicine. Contact Kas Jamal, M.D., 604 Ninth Street N, Virginia, MN 55792. 218/741-2222 or kasjamal@Hotmail.com. 4-1/00

---

**Medical Office Space:** Newly updated medical offices in excellent location, central north suburban, professional building. Free parking with fitness center, swimming pool and conference center. Competitive rental rates. 651/636-3088. 2-1/00

---

**Anesthesiologist–Minnesota** Established anesthesia group has openings in its existing group practice at hospital sites in Brainerd and Bemidji, Minnesota. We offer full-time or flexible part-time positions with a competitive salary and benefit package. All candidates should be either BE or BC. Direct all inquiries to: Thomas Yue, M.D., Regional Anesthesia Services P.A., 15612 Highway 7, Suite 243, Minnetonka, MN 55345; phone 612/932-0998 or fax 612/932-7122. (10/99-R)

---



*St. Cloud, Minnesota*—St. Cloud Hospital/Mayo Family Practice Residency Program, a successful, community-based, unopposed, 4-4-4 Family Practice Residency program sponsored by Mayo Graduate School of Medicine seeks a full-time BC physician/faculty member to join its experienced faculty. As a member of this team, your responsibilities will include 50 per cent teaching and resident supervision and 50 per cent direct patient care, including inpatient, outpatient, and maternity care. We offer a highly competitive salary commensurate with training and experience and benefits including relocation allowance, four weeks of paid vacation, and two weeks of CME. This program emphasizes doctor-patient relationships, rural practice preparation, procedural training, obstetrical care, evidence-based medicine and an adult learner model. St. Cloud is a growing, family-oriented college town of 100,000 conveniently located between Minneapolis/St. Paul and prime Minnesota lake areas. Please contact George Schoephoerster, M.D., at 800/999-1875, fax CV, 320/240-3165, or e-mail: schoephoersterg@centracare.com

**✠ St.Cloud Hospital / Mayo Family Practice Residency**

---

## Hubert H. Humphrey Cancer Center

*A Member of North Memorial Health Care*

The Hubert H. Humphrey Cancer Center is seeking a tenth oncologist to add to its growing suburban Minneapolis practice. HHHCC supplies hematology and oncology consultative services to three Minneapolis hospitals and outreach services in rural Minnesota and Wisconsin. We offer active clinical research protocols through GOG, pharmaceutical companies, and Metro-MN CCOP (ECOG, NSABP, RTOG, MDA, North Central Cancer Treatment Group).

We offer an excellent benefits package that includes a competitive salary; health, dental@@, life, disability and malpractice insurance; vacation/CME; generous 401k retirement plan; relocation expense and more.

Whether you are looking for a cosmopolitan urban environment or a clean, safe suburban neighborhood, Minneapolis is nationally recognized as an outstanding place to live. We have award-winning school systems, an abundance of lakes and parks, affordable housing and a variety of year-round activities.

***Mail, Fax, or E-mail Cover Letter and C.V. to:***

Mark A. Peterson, Physician Recruiter
North Memorial Health Care
3300 Oakdale Avenue North
Robbinsdale, MN 55422

**Phone: (800) 275-4790 or (612) 520-1336 Fax: (612) 520-5997**
**E-mail:mark.peterson@northmemorial.com**

## Picture your future with ACMC... We think you'll fit right in!

Imagine yourself practicing in a 100+ multi-specialty group providing primary and secondary care in over 23 specialties in a network of 10 clinics in Southwestern and West Central Minnesota. You would be surrounded by some of the finest lakes and recreational activities in the state with the comforts of a thriving community — outstanding schools, a variety of churches and a healthy business community.

ACMC offers a secure practice among a well-established and respected physician owned group with a very competitive financial and benefits package.

Positions now available for BE/BC physicians in:

**Family Practice • Gastroenterology • General Surgery**
**Internal Medicine • OB/GYN • Oncology**
**Orthopedic Surgery • Pediatrics**

Please contact:
**Kari Bredberg, Physician Recruitment**
**(320) 231-6366 • karib@acmc.com**
Affiliated Community Medical Centers
101 Willmar Avenue SW • Willmar, MN 56201
www.acmc.com

Affiliated COMMUNITY Medical Centers, P.A.

---

**Medical Director:** Augsburg College Physician Assistant program is seeking a medical director. This faculty position is a 0.2 FTE, or approximately 8 hours per week. Job duties include: some teaching, clinical site development, assistance with curricular development, committee involvement, and assistance in the administration of program. Qualified applicants will be a physician with an MD or DO with a current license to practice medicine in Minnesota. Preferred qualifications include: physicians who are currently practicing in a primary care clinical setting, knowledge of the PA role, interest in curricular development, and interest in clinical site development. Preference given to resumes received by February 15, 2000. Send resume and letter of interest to: Dawn B. Ludwig, Search Committee Chair, Augsburg College, Department of Human Resources, 2211 Riverside Avenue, Box 79, Minneapolis, MN 55454. 1-1/00

---

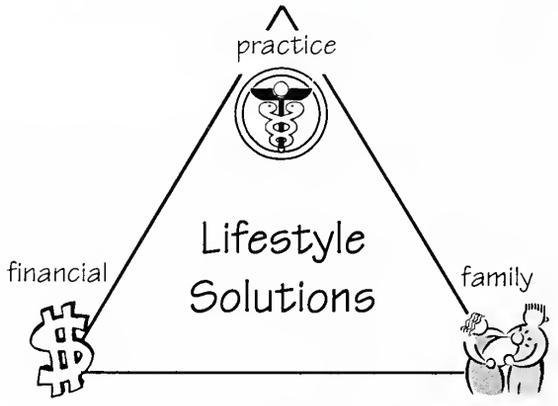
**MDsearch** assists medical groups and hospitals in their recruiting efforts. For confidential information on opportunities in the Upper Midwest, send CV and/or call collect Mary Jo Cordes, MDsearch, PO Box 21507, St. Paul, MN 55121; 651/454-7291. Fax: 651/454-7277. (2/93-R)

---

**Seeking Independent Practice Opportunity?** Ideal location in St. Paul's beautiful Highland Park. Fully staffed/equipped office for the immediate start of your new practice. Contact Stephanie at 651/698-5711. 6-1/00

---

## P R O V I D I N G




## SOLUTIONS

**• Emergency Medicine • Locum Tenens**

**ACUTE CARE, INC.**

For more information, please call
**800.729.7813 or 515.964.2772**
e-mail address: liza@acutecare.com or jeffw@acutecare.com
home page: http://www.acutecare.com

---

**We've been practicing medicine for over 80 years. Maybe it's time you joined us.**

*We're looking for BC/BE physicians for the following positions:*

**Occupational Medicine**—Our WorkPartners℠ program is well established and has a professional support staff in place. WorkPartners℠ has established relationships with several area employer groups and is a designated provider. Our service area includes a population of over 250,000.
No nights or on call.

**Urgent Care**—This position is supported by another full-time physician, two PAs and a complete staff of urgent care nurses. Our Clinic is adjacent to the regional referral center hospital and has interior walkway access to their facilities.
We have our own lab and x-ray departments that are open during all urgent care hours. This opportunity is for out-patient work only, with no on-call responsibility.

Mankato is home to several major corporation subsidiaries and multi-national companies. We offer a guaranteed first year salary with incentive pay plan. Our full range of benefits includes a generous retirement plan and liberal time-off policy.

**For more information call Dr. Byron C. McGregor, Medical Director at 507-389-8548 or Dennis Davito, Director Physician Recruitment, 507-389-8654 or send CV.**

**Mankato Clinic**
**1230 East Main Street**
**Mankato, MN 56002-8674**

# *Minnesota Medicine*

AN EXCELLENT ADVERTISING INVESTMENT

Target marketing pays real dividends with your space advertising in *Minnesota Medicine,* the official journal of the Minnesota Medical Association.

Delivered directly to offices, hospitals, and clinics, *Minnesota Medicine* reaches your key clients and prospects in their business setting.

*For complete advertising information contact:*

Michele Holzwarth
Minnesota Medicine
3433 Broadway Street NE, Suite 300
Minneapolis, Minnesota 55413
612/623-2880
800/DIAL-MMA (342-5662)

# Fairmont Clinic

*Mayo Health System*

Having growth and expansion, the Fairmont Clinic — part of the Mayo Health System — a 20-plus physician multispeciality clinic is currently recruiting additional BE/BC physicians in the following specialities:

- **Dermatology**
- **ENT**
- **Internal Medicine**
- **Pediatrics**
- **Radiology**

Fairmont Clinic guarantees salary the first two years with a production bonus. We also have an excellent benefit package including sabbatical and generous CME.

*For consideration to be a part of our team in southern Minnesota, please contact:*

DuWayne Hansen, M.D., Medical Director
Mr. Ennis Arntson, Administrator
P.O. Box 800, 800 Clinic Circle
Fairmont, Minnesota 56031
Phone: 507-238-8596 Fax: 507-238-8510
Email: hansen.duwayne@mayo.edu
arntson.ennis@mayo.edu

**PHYSICIANS**

# Air Force Healthcare. Good Pay. Professional Respect.

## Why Do You Think We Say "Aim High"?

Experience the best of everything. Best facilities. Best benefits. Outstanding opportunities for travel, 30 days vacation with pay, training and advancement.

**For an information packet call**
**1-800-423-USAF**
**or visit www.airforce.com.**

You'll see why we say, "Aim High."

AIM HIGH
AIR FORCE
HEALTH PROFESSIONS


JANUARY 2000 INDEX TO ADVERTISERS


Acute Care Inc. ..... 66
Affiliated Community Medical Centers ..... 66
Air Force Health Professional ..... 67
Alexandria Clinic, P.A. ..... 62
Allina Continuing Education ..... 43
Army Reserve ..... 60
Aspen Medical Group ..... 61
Brainerd Medical Center ..... 62
Camden Physicians ..... 61
CentraCare Clinic ..... 60
Central Plains Clinic, Ltd. ..... 59
Delacore Resources ..... 32
Emergency Practice Associates ..... 62
Fairmont Clinic ..... 67
First Call Physicians, Inc. ..... 63
Health Risk Management ..... 39
HealthPartners ..... 38, 63
HealthPartners Inst. for CME ..... 13
Joseph House, M.D. ..... 63
Management Services by Choice ..... 50
Mankato Clinic ..... 66
Mayo Clinic ..... 57
Medical Protective Company ..... 5
MeritCare ..... 63
Midwest Medical Insurance Co. ..... Cover 3
MMA Membership ..... 9, 55
MMBR ..... 13, 41, 44, 56, 58
Multicare Associates of the Twin Cities ..... 60
North Memorial Healthcare ..... 28, 65
Prudential ..... 13
Regions Hospital ..... Cover 2
St. Cloud Hospital ..... 49, 65
University of Minnesota Continuing Medical Education ..... 3
Vencor ..... Cover 4
Veterans Affairs–St. Cloud ..... 25
Winona Clinic Ltd. ..... 49

# The Virtues of the Simple Sentence

## *Don't neglect this easy strategy for clarity and rhythm*

James Kaufmann, Ph.D.

"We wish to suggest a structure for the salt of deoxyribose nucleic acid (DNA)." With this plain sentence begins one of the most significant scientific reports of the 20th century, the announcement by Watson and Crick, in the April 25, 1953, issue of *Nature,* that they had discovered the double-helical structure of DNA. More about this article later. First:

### *A Detour to Grammarian Heaven*

Sentences are built from clauses (a clause is a group of words containing a subject and a verb). Sentences are classified as simple, compound, complex, or compound-complex, according to the kind and number of clauses they contain.

An independent clause can stand alone as a sentence. A sentence composed of one independent clause is a simple sentence: "Each year, as many as 30,000 head-injured patients have post-traumatic seizures." A compound sentence is composed of two or more independent clauses joined by a semicolon or coordinating conjunction (e.g., and, but, or): "Early retrospective studies of the prophylactic use of phenytoin were encouraging, but subsequent prospective studies have been inconclusive."

Unlike an independent clause, a dependent clause cannot stand alone as a sentence. Introduced by a subordinating conjunction (e.g., although, as, because, how, if, since, unless, when), it must lean on an independent clause. A sentence composed of one independent clause supporting one or more dependent clauses is a complex sentence (dependent clause italicized): "*Because previous studies have lacked statistical power,* we conducted our study in a large cohort of patients."

Like a dependent clause, a relative clause cannot stand alone. Often introduced by a relative pronoun (e.g., who, which, that) acting as the subject of the clause, it attaches to an independent clause to produce a complex sentence (relative clause italicized): "In this study, *which was designed to enroll patients with a high rate of seizures,* we sought to clarify the role of phenytoin."

Finally, a compound-complex sentence contains two or more independent clauses, at least one of which supports one or more dependent or relative clauses.

### *Back to Watson and Crick*

So, you've got one of the century's most important scientific achievements to report—what kind of sentences do you use? Given the science involved, you might find yourself writing mostly compound and complex sentences. Such sentences allow writers to pack in information and show relationships between ideas.

Watson and Crick, however, used the simple sentence to a startling degree. Of the 46 sentences in their brief article, 23 are simple, averaging a mere 16 words in length. (Of the remaining 23 sentences, 16 are complex; these 23 sentences average 25 words, which also is short for nonsimple sentences.) The tidy packaging of information aids clarity, and the article moves briskly to its climax, in what is perhaps the scientific understatement of the century: "It has not escaped our notice that the specific pairing we have postulated immediately suggests a possible copying mechanism for the genetic material." (Although not a simple sentence, it is a good example of a "periodic sentence," one in which the words with the most impact come at the end.)

### *Your Take-Away*

Because they need to convey specialized information and subtle meanings, scientific writers tend to write longer, more complicated sentences. If this tendency goes unchecked, however, at best the result is a sluggish text; at worst, a text with sentences burdened to the point of obscurity and even grammatical error.

As Watson and Crick demonstrated, the simple sentence can be a useful tool. It is especially effective for introducing a topic, defining a term, stating a fact, and (best of all) stressing an important point. Use it. You'll improve the clarity and rhythm of your text. MM

*James Kaufmann is director of the Office of Communications, Hennepin Faculty Associates, in Minneapolis.* *© 2000 James Kaufmann*

# Minnesota Medicine

A JOURNAL OF CLINICAL AND HEALTH AFFAIRS

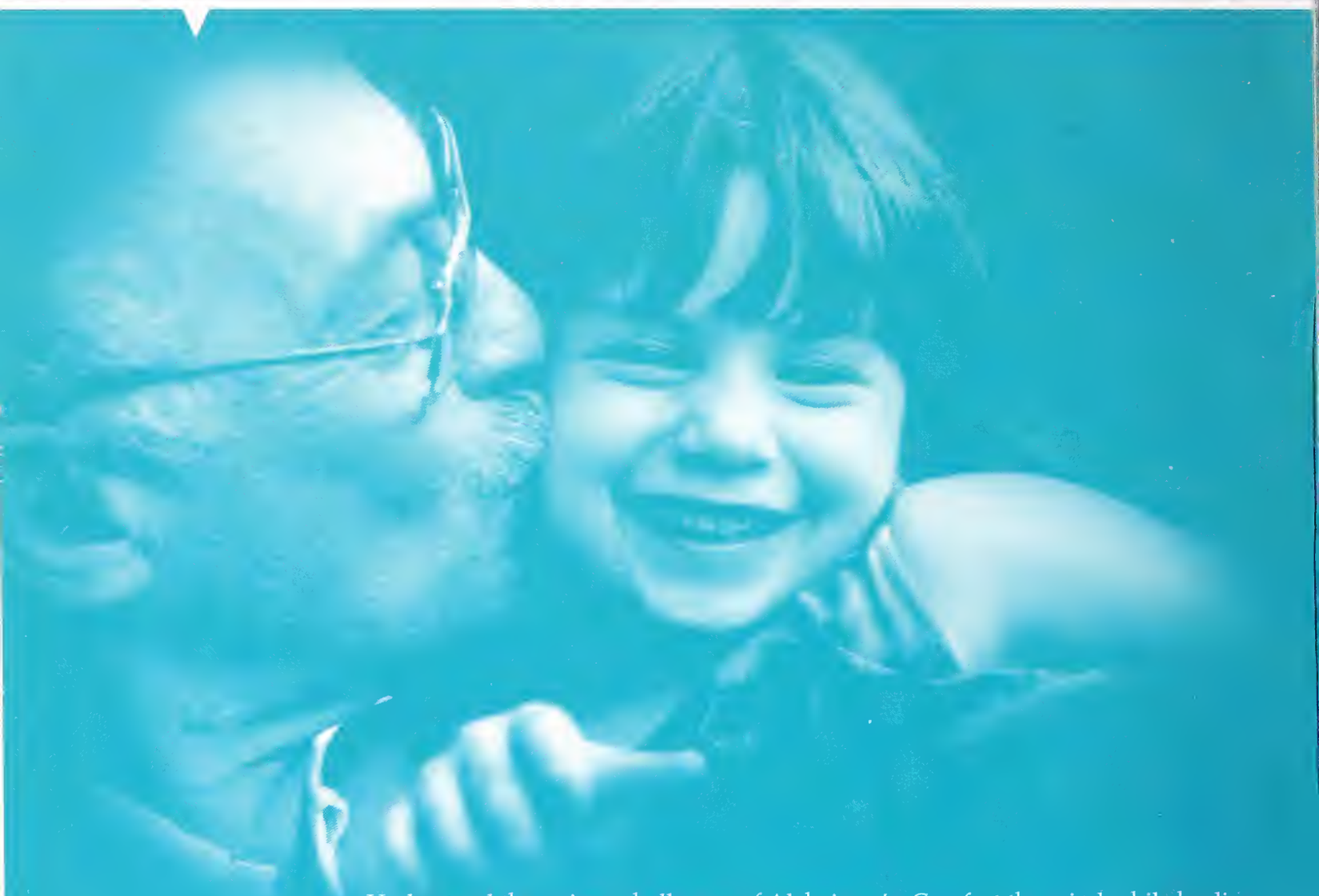


HS/HSL
UNIVERSITY OF MARYLAND AT
BALTIMORE
MAY 31 2002
REC'D
NOT IN CIRC.

## Patient Care:
## Who's Pulling the Strings?

FEBRUARY 2000

# MEMORIES MAY FADE
# BUT LIFE DOESN'T HAVE TO.



Understand the unique challenges of Alzheimer's. Comfort the mind while healing the body. And maximize human potential to make every day an unforgettable one. It's how Bethesda reinvents lives.

**BETHESDA REHABILITATION HOSPITAL**

800-566-2720

St. Paul, MN

HealthEast Care System

*Dedicated to Caring.*

www.healtheast.org

GERIATRIC MEDICAL/BEHAVIORAL | BRAIN INJURY | RESPIRATORY CARE | REHABILITATION

# Minnesota Medicine

Published monthly by the Minnesota Medical Association



COVER

*Illustration by Mike Reed.*
*See Perspectives, page 10.*

DEPARTMENTS

2 ..... Editor's Note

33 ..... MMA News & Views

41 ..... Author Instructions

61 ..... MMAA Update

64 ..... CME in Minnesota

68 ..... Classified Ads

71 ..... Index to Advertisers

HOBBIES & LEISURE

**Snowbird**, by Howard Bell, page 72.

*When the snow flies, so does Dr. Leonard Nordstrom ... on skis.*

FACE TO FACE

**8** **The Attorney General's Health Care Agenda** ..... Kim Palmer
*Mike Hatch makes headlines as he takes on health care reform, patient protections, and data privacy.*

PERSPECTIVES

**10** **Fit to Be Tied** ..... Noël Radcliffe, M.D.
*When it comes to patient care, who's pulling the strings?*

**14** **Lament of the Older Generation** .. Andrea Carlson and Paul Odenbach
*Medical students (and amateur songwriters) consider the plight of the uninsured.*

COMMENTARY

**16** **Managed Care Finds Itself in Dire Straits** ..... Ronald J. Glasser, M.D.
*Overzealous attempts to cut costs have brought managed care to the point of collapse, argues this physician-author.*

EDITORIAL

**22** **Faultfinding: No Cure for Health Care Woes** ..... Michael Scandrett
*Physicians, health plans, employers, and consumers must all work together to control health care costs.*

SPECIAL REPORT

**25** **Late Payment of Physician Claims: Results of an MMA Survey** ..... Janet Silversmith
*Delayed payment of physician claims by health plans is a vexing problem. Here's how long Minnesota physicians wait to be reimbursed.*

LEGISLATIVE REPORT

**29** **MMA Legislative Preview: 2000 Promises Short Session, Big Surplus, Complex Issues** ..... Dave Renner

CLINICAL & HEALTH AFFAIRS

**42** **Rural Minnesota Family Physicians: Practice Characteristics, Gender, Income, and Job Satisfaction** ..... Robert E. Berg and Barbara A. Elliott, Ph.D.

**48** **Minnesota Bound: Stability of Practice Location among UMD Family Physicians in Minnesota** ..... James G. Boulger, Ph.D.

**51** **Whiplash, Chronic Neck Pain, and Zygapophyseal Joint Disorders** ..... David B. Ketroser, M.D.

MEDICINE LAW & POLICY

**55** **Practicing in the Age of EMTALA** ..... Barbara E. Tretheway, J.D., and Hilary D. Marden
*What physicians should know to comply with the "Patient Anti-Dumping Statute."*

# Final Exam: Health Care Econ 101

Complete the following statement and support it with references. *The health care crisis could be solved if:*

(a) physicians learned to order tests and procedures based on prudent, cost-effective decisions (ref. George Halvorson, managed care executive).



(b) government eased regulations that stifle innovation and inhibit market competition (ref. Milton Friedman, Nobel laureate in economics).

(c) the bloated bureaucracies and cost-first mentality of managed care evaporated and we returned to the system in which patients are responsible for choosing and paying more directly for their own care (ref. Ronald Glasser, M.D., Minneapolis pediatrician and author, see Commentary, page 16).

(d) we admitted we want more than we are willing to pay for (ref. Charles Meyer, M.D., *Minnesota Medicine* editor).

*"We need a health care system that allows all players to do what they do best."*

Everyone has an opinion (and most have a scapegoat). But few have an answer that can withstand scrutiny. The health care cost crisis is like a multiple-choice item on an exam made up by the Sphinx and graded by Cerberus.

As is clear from my answer (d), I don't claim Delphic wisdom. But, as a veteran test taker, I know the best approach to complex questions is to eliminate the wrong answers. I'll start there. Indiscriminately reining in technology is not the answer. Medical practice has radically changed and improved in the past 20 years because of technological advances. When I started practicing in 1977, CT scans, MRIs, arthroscopy, laparoscopic surgery, intraocular lenses, coronary artery bypass, angioplasties/stents, and most of the drugs I now prescribe every day either didn't exist or were in their infancy. I don't yearn for outmoded techniques such as pneumoencephalograms and open knee meniscectomies.

Stamping out greed is not the answer either. The furnace of health care costs sits in the doctor's exam room, stoked by patient expectations, patient need, patient complexity, and physician need for certainty. Little heat is generated by doctor greed. Most of the millions of dollars of health care ordered by physicians do not return a penny to the practitioner.

Nor is developing better guidelines or more micromanagement the answer. Physicians want to do their best for their patients. Rules that apply to every patient except the one in your exam room don't help.

Mimicking another system, such as Canada's, is not the answer. Red ink has tainted Canada 's single-payer system, proving that even with one payer and one efficient bureaucracy, the bank can break.

And returning to the "good old days" of unrestrained fee for service is out of the question. The crime of managed care is not its claim that it has helped moderate health costs; it has. Its crime is that it has focused too long and hard on cost and efficiency and too little on care and quality.

So what's left? Choice (d) has some clear implications.

We need a health care system that allows all players to do what they do best—that lets doctors decide treatment for patients, hospitals provide efficient acute care, and insurers administer claims.

We need to understand not just how technology can be used, but also how technology gains a foothold in our cultural consciousness. How long will it be before $500 gift-certificate CT scans for coronary artery disease become "legitimate" technology? And will scientific evidence or a PR campaign confer legitimacy?

We also need to work for national agreement on what we can and will do and for whom. Will we perform coronary bypasses on 90-year-olds? Will we do MRIs on demand? We need rules that don't flunk physicians for saying yes to their patients' needs.

What's my grade?

*–Charles R. Meyer, M.D., Editor-in-Chief*

ADVANCED IMAGING MRI

# A clear image of the future.

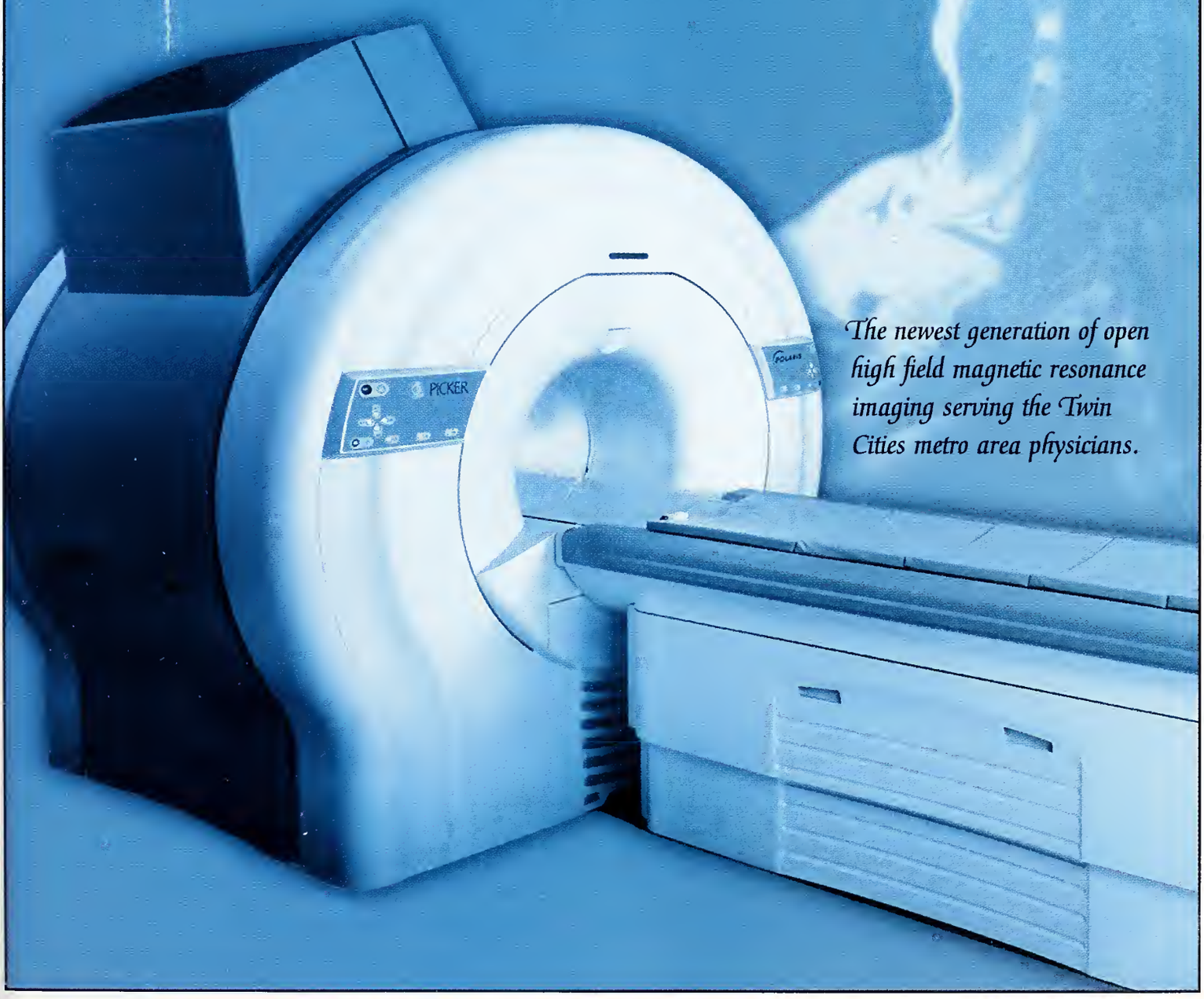
## Clarity. Convenience. Confidence

All MR imaging systems are not the same. Give your practice -and your patients- the most advanced, most versatile diagnostic service available.

Our facility is located at
Central Medical Building at
Lexington Pkwy. and I-94
St. Paul

To make referrals for patients call:

(612) 529-6000
(651) 647-0000
FAX: (651) 647-1111




*The newest generation of open high field magnetic resonance imaging serving the Twin Cities metro area physicians.*

# *Minnesota Medicine*

Published monthly by the Minnesota Medical Association

*Owner and Publisher*
Minnesota Medical Association

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Managing Editor*
Meredith McNab

*Associate Editors*
Margaret Parker
Carmen Peota

*Publications Assistant*
Katie Leonard

*MMA News & Views Editor*
Lorrie Holmgren

*MMA News & Views Writer*
Cynthia Lehman

*Graphic Designer*
Sarah Kirkwood

Send manuscripts, subscriptions, and other material for consideration to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/378-1875. E-mail: mm@mnmed.org The editors reserve the right to reject editorial, scientific, or advertising material submitted for publication in *Minnesota Medicine*. The views expressed in this journal do not necessarily represent those of the Minnesota Medical Association, its editors, or any of its constituents. Annual subscription–$40. Single copies–$3.50. Canadian–$70. Foreign–$70.

*To Advertise:* Contact Michele Holzwarth, *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/623-2880 or 800/DIAL MMA (342-5662).



**Advisory Committee**

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Advisory Committee*
Charles R. Meyer, M.D.
Edmund C. Burke, M.D.
Richard C. Lussky, M.D.
Lynne Ogawa, M.D.
Paul S. Sanders, M.D.
Leif I. Solberg, M.D.
Barbara P. Yawn, M.D.
Meredith McNab, staff

*Editors Emeritus*
Edmund C. Burke, M.D.
1991-1993

Richard L. Reece, M.D.
1975-1990

Reuben Berman, M.D.
1971-1974

Carl O. Rice, M.D.
1961-1970



**Copyright & Post Office Entry**

*Minnesota Medicine* (ISSN 0026-556X) is published on the fifth of each month by the Minnesota Medical Association, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761, copyright 2000. Permission to reproduce editorial material in this magazine must be obtained from *Minnesota Medicine*. Periodicals postage paid at Minneapolis, Minnesota, and at additional mailing offices. POSTMASTER, send address changes to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761. (USPS 3519000.)



MINNESOTA MEDICAL ASSOCIATION

**1999–2000 Officers**

*President*
John M. Van Etta, M.D.

*President-Elect*
Blanton Bessinger, M.D.

*Chair, Board of Trustees*
Robert K. Meiches, M.D.

*Vice President*
Kevin C. Fleming, M.D.

*Secretary*
David L. Estrin, M.D.

*Treasurer*
Noel R. Peterson, M.D.

*Speaker of the House*
Gary D. Hanovich, M.D.

*Vice Speaker of the House*
Rebecca Jean Hafner, M.D.

*Past President*
Judith F. Shank, M.D.

*Chief Executive Officer*
Paul S. Sanders, M.D.

**MMA Senior Staff**

*Director of Communications*
Lorrie Holmgren

*Chief Financial Officer*
George C. Lohmer Jr.

*Director of State and Federal Legislation*
David Renner

*Director of Health Law*
Christina F. Rich, J.D.

*Director of Health Economics and Policy Analysis*
Janet Silversmith

*Director of Executive Office*
Karen A. Tourdot

**Alliance**

*President*
Sandra Weissler

*President-Elect*
Diane Gayes

**Board of Trustees**

*N.W. District*
Jerry P. Rogers, M.D.

*N.E. District*
James L. Anderson, M.D.
Charles R. Helleloid, M.D.

*N. Central District*
James J. Dehen Jr., M.D.
Keith D. Larson, M.D.

*West Metro*
Lee Beecher, M.D.
Karen K. Dickson, M.D.
John W. Larsen, M.D.
Robert K. Meiches, M.D.
Henry T. Smith, M.D.

*East Metro*
Thomas Dunkel, M.D.
Joseph L. Rigatuso, M.D.

*S.W. District*
Terence P. Cahill, M.D.
Elton G. Wing, M.D.

*S.E. District*
Peter Amadio, M.D.
G. Richard Geier Jr., M.D.
Kimberly McKeon, M.D.

*Resident Member*
Andrew G. Moore, M.D.

*Medical Student*
Joel V. Oberstar

**AMA**

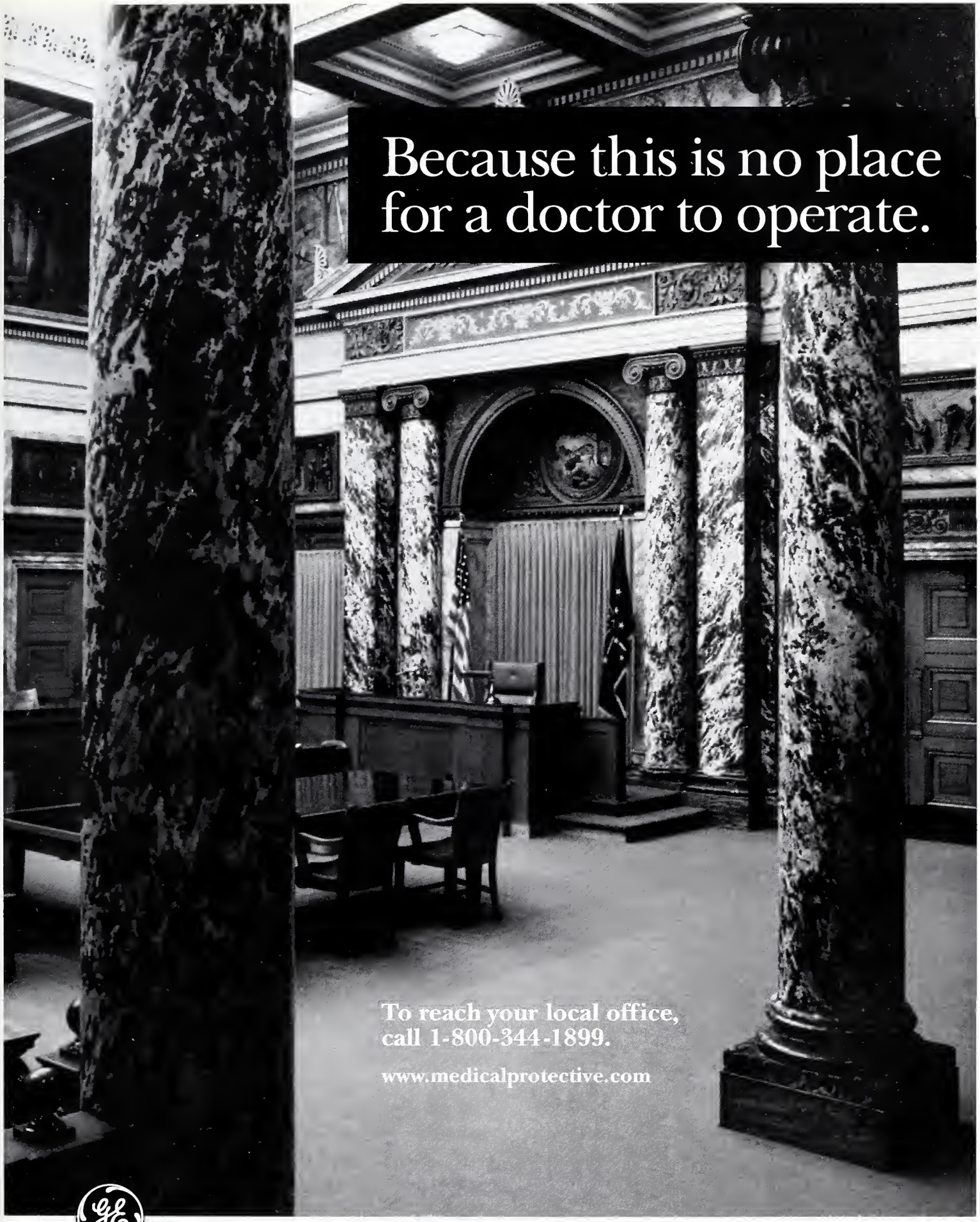
*AMA Delegates*
Robert D. Christensen, M.D.
Frank J. Indihar, M.D.
Carolyn J. McKay, M.D.
Lyle Munneke, M.D.
Audrey M. Nelson, M.D., *Chair*
Thomas L. Peyla, M.D.
Andrew J.K. Smith, M.D.

*AMA Alternates*
Raymond G. Christensen, M.D.
Kenneth W. Crabb, M.D.
Anthony C. Jaspers, M.D.
Paul C. Matson, M.D.
Sally Trippel, M.D.
John M. Van Etta, M.D.
Benjamin H. Whitten, M.D.



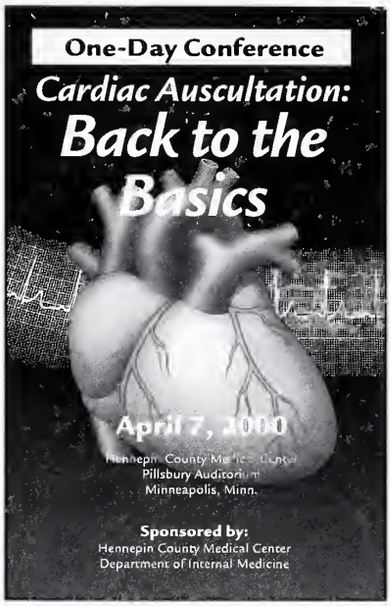
**MMA Address**

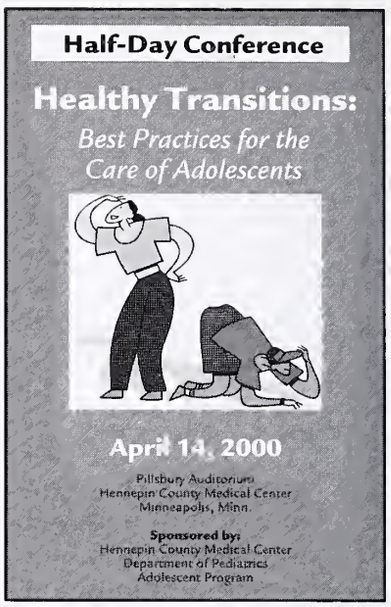
Minnesota Medical Association
3433 Broadway Street NE, Suite 300
Minneapolis, MN 55413-1761
Phone: 612/378-1875 or 800 DIAL MMA (342-5662)
Fax: 612/378-3875
E-mail: mma@mnmed.org
Web site: www.mnmed.org




***The Medical Protective Company®***

# CME @HCMC




Hennepin County Medical Center (HCMC) is one of the major teaching hospitals in Minnesota. Continuing Medical Education (CME), formerly known as the Office of Academic Affairs, at HCMC was established in 1983.

The mission of HCMC's CME Program is: "to provide organized, planned education activities to help physicians improve delivery of medical care."

## Accreditation

Hennepin County Medical Center is accredited by the Minnesota Medical Association (MMA) to sponsor Continuing Medical Education for physicians.

Hennepin County Medical Center designates hour-per-hour credit hours in category 1 of the Physician's Recognition Award of the American Medical Association.

## For More Information

We would like to hear your comments and suggestions for CME activities!

**Hennepin County Medical Center**
Continuing Medical Education
701 Park Avenue, Mail Code 861-B
Minneapolis, Minnesota 55415-1829

612-347-2075 Fax: 612-904-4210
Toll Free: 888-263-4262
email robin.hoppenrath@co.hennepin.mn.us

## EMS Certification Courses

Emergency Medical Services offers numerous courses throughout the year. To request a listing of classes or a course brochure, please call 612-347-5681. Visit the EMS Website at www.HCMC.org/DEPTS/EM/EMSED

# 2000

**April 7**
**Cardiac Auscultation: Back to the Basics**

**April 14**
**Healthy Transitions: Best Practices for the Care of Adolescents**

**May 19**
**Biological, Chemical & Nuclear Terrorism**

**Spring**
**OB/GYN Conference/Details to be announced.**

**September 15-16**
**ALSO Course -- Advanced Life Support in Obstetrics**

**October 5-6**
**Annual Forensic Science Seminar**

**November 2-4**
**Annual Orthopaedic Trauma Conference**

**November 3-4**
**MMRF (Minneapolis Medical Research Foundation)**
**Annual Gala Event and CME Conference**

**November 10**
**Annual Minneapolis-St. Paul Diabetes Forum**

**December 8**
**Annual Family Practice Update**

**To Be Announced**
**Acupuncture Course**
**Annual Contemporary Issues in Dialysis**
**Osteoporosis Conference**



## More to the Story

I greatly enjoyed your issue on mental illness [October 1999] and thought that many of the papers were excellent. I agree that the history of lobotomy in this state involved poor logic and medical decision making.

As a resident in psychiatry assigned to the Rochester State Hospital, I was peripherally involved in the case that was mentioned in the article and that went to court in 1977. The patient had been in the hospital for a couple of decades. He was a very intelligent man who was completely disabled by obsessive-compulsive disorder and who also had a thought disorder. He spent every day—indeed every waking moment—doing rituals designed to lessen his contamination from purported pathogens in the environment. He felt that he never succeeded. He was a truly miserable, driven, even tortured, man. He was operated on by a very skilled Mayo Clinic neurosurgeon and had a cingulumotomy. His recovery from the surgery was without incident. While he continued to have some rituals, he was far less tormented by them than he had been, and he regained some sense of perspective and even humor about them. The Rochester State Hospital closed abruptly, unfortunately, and I do not know if this patient was ever able to be discharged from the state hospital system. In his case, however, the operation was certainly helpful.

*Lloyd A. Wells, Ph.D., M.D.*
*Mayo Clinic*
*Rochester, Minnesota*

## Sharing Information about Mental Illness

Thank you for sending copies of the October 1999 issue on mental illness to me. I will distribute them to fellow chaplains working in mental health at Fairview-University Medical Center and to colleagues from other disciplines in Behavioral Services who might be interested.

Again, thank you to the Minnesota Medical Association for your good work in helping educate people—especially in the medical profession—about mental health issues.

*Bill Dexheimer Pharris*
*Chaplain, Fairview-University Medical Center*
*Minneapolis*

## E-beams and Gamma Rays

I was thrilled to receive a copy of your November magazine from Dr. Michael Wood, CEO of the Mayo Foundation. Dr. Wood sent this to me because he is aware of our company's involvement in the irradiation of food. This had been a goal of mine and Cloverleaf Cold Storage for more than 20 years, and I was pleased to have been chosen by Titan to be a strategic partner in this venture.

The food companies you mentioned in your article have, I believe, made plans to use the facility you talk about in Sioux City, Iowa. One picture is of the Titan irradiator, or food pasteurizer, located at our company site in Sioux City.

On page 18 of your magazine you write about MMA and AMA policies on food irradiation. You state that all irradiated (cold pasteurized) foods should carry the international logo that indicates that the food has been subjected to gamma radiation. I would like to point out that the Titan cold pasteurization facility in Sioux City is an electronic, or e-beam, facility and, as such, does not use gamma rays.

Your article was fantastic, but I think the MMA should rethink the view that products coming out of the Titan facility in Sioux City should be required to use the gamma ray symbol.

Thanks for publishing a wonderful piece on cold pasteurization.

*Morton J. Kaplan*
*President*
*Cloverleaf Cold Storage Co.*
*Sioux City, Iowa*

A Pink Ribbon Reminder...

Get Regular Mammograms

**For more information call 1-800-ACS-2345**

# The Attorney General's Health Care Agenda

MIKE HATCH
MAKES HEADLINES AS HE TAKES ON
HEALTH CARE REFORM, PATIENT PROTECTIONS, AND DATA PRIVACY.

By Kim Palmer

Mike Hatch campaigned for Minnesota attorney general on a platform of health care reform, pledging to shake up health plans and insurance companies. Since taking office last year, he has pursued an aggressive treatment plan, grabbing headlines along the way.

Hatch quickly proposed a patient protection bill that would have made it harder for health insurance plans to deny coverage. He won a $3 million settlement after challenging U.S. Bancorp's practice of sharing customer data with telemarketing firms, a case that has implications for the health care and pharmaceutical industries, he says.

Late last year, Hatch joined a Minnesota Senior Federation lawsuit challenging the constitutionality of the federal government's formula for distributing Medicare benefits, saying it discriminates against Minnesota patients by setting reimbursement rates here that are lower than those in many other parts of the country. (The lawsuit seeks a court order forcing the Department of Health and Human Services to equalize rates across the country, lowering those that are above average and raising those that are below average.)

His initiatives have had mixed success. The Patient Protection Act of 1999 failed to pass the Legislature. Legal experts have predicted that the Medicare lawsuit is a very long shot.

But Hatch is undeterred. "We've got a good judge, Judge [Donald] Alsop," he says. "We have a compelling example." (A 72-year-old former Minnesotan who now lives in Florida but would like to move back to be near her daughter has not done so because Medicare payments in Florida give her much more extensive coverage than she could get here.) "I'm hopeful."

He's also optimistic about getting a patient protection bill passed this legislative session. "It's all going to come back," he predicts, and in close to its original form. That would include a definition of experimental coverage, plus a requirement that denials be made by providers with knowledge of the particular medical area (an amendment supported by the Minnesota Medical Association). The bill would also require more disclosure of how doctors are paid by HMOs. (Generally, it is illegal for doctors to receive kickbacks for referring patients to other doctors, but legal for HMOs to base doctors' payment on *not* referring patients to other doctors.)

"Legislators are much more interested this time," Hatch says. "They've been able to go home and listen to their constituents; they've learned it's a real issue.

## 'Intense Fact Gathering'

Hatch drew media attention again last month, when he announced plans to audit Minnesota HMOs to help explain why health insurance premiums are rising by 20 percent annually. In fact, his office is conducting an "intense fact-gathering process" concerning the bigger picture of health care in Minnesota. He predicts no legislative action this session from that research, but he does hope to release a report sometime this year. "We're looking at the health care financial structure



PHOTOGRAPH BY JOHN NOLTNER

in Minnesota," he says. "There have been a lot of mergers and consolidations," with the result that managed care organizations are very concentrated.

"We've put in a large amount of work and interviewed 100 providers," Hatch says. "The more we get into it, the more we find there's nothing easy about health care. It's very complex." His research is intended to answer questions such as "What are the economics of health care in Minnesota? Is it truly reflective of a competitive atmosphere? What are the factors that cause premiums to go up?"

But Hatch isn't ready to say what he thinks needs fixing. "If I'm going to criticize, I'd better come up with a better idea.

"Some of my initial conclusions are not as firm as they once were," he acknowledges. The health care industry is "very convoluted," with different issues dominating in different parts of the state. "You can't make any broad, sweeping statements ... although a year ago, nothing prevented me from making broad, sweeping comments," he notes wryly.

Hatch earned a reputation as a zealous consumer watchdog during his seven years as former Gov. Rudy Perpich's commerce commissioner. But the fact that he is an advocate for consumers doesn't mean he's out to get business, he says. "It's important, if you're in a legitimate enterprise, to be able to compete fairly. If you go back and look at some of the great market failures, it was some very lax government involvement that led up to them. We forget that. We think pro-consumer is anti-business. It's not."

## Data Privacy

Another area of concern to Hatch is the privacy of patients' medical records. "Should we be shipping patient data to the Department of Health? Ostensibly, [doing so is] designed to develop better treatment plans. I don't buy that. I don't think the Department of Health is a valid research entity, and I don't think it's the place

*Hatch to page 32*




ILLUSTRATION BY MIKE REED

## By Noël Radcliffe, M.D.

# When it comes to patient care, who's pulling the strings?

I always hate getting up for 7 a.m. meetings in the middle of winter. Today I wake up in complete darkness and make my way to the bathroom, where the tiles, like pond ice underfoot, shock me into a remote consciousness. My family is sleeping, so I wash my face and brush my teeth by the thin blue light from the street. I dress in the dark, pull my hair back into a barrette, and head out the door with a piece of toast and a mug of yesterday's coffee. As I sit shivering in a cold car wishing I had worn my boots, I remember why I am here. My car melts into a line of headlights all pointing toward the city. My destination is a business meeting—the business of practicing medicine.

I hate business meetings. No, that's not strong enough: At 7 a.m. on a cold winter's day, I despise them. I didn't always feel this way. It took several years of starting the day on a sour note. Today is no different.

We gather around the lunchroom table at the office. We've given up meeting for breakfast, though no one really knows why. The office manager hands out the financial sheets from last month and grimly explains why our numbers are off from last year's. "Collection is 73.48 percent. Days in A/R average 34." I try to look interested as I mask the bitterness of my coffee with another packet of sugar. "Insurance write-offs ..." I glance at my partner and we share the bad news, searching each other's expression for some sign that things are going to get better.

Next comes news from the insurance plans. The last few years have brought repeated assaults on our freedom to practice medicine as we see fit. Today we learn that there has been no progress in our efforts to be paid the same rate for the x-rays we take in our office as specialists are paid. A decision by the health plan that was supposed to decrease the number of x-rays taken by primary care clinics, and thus control costs, has left us absorbing the cost of those x-rays. Our alternative is to send our patients across the street for their x-rays. This would take more time, be inconvenient, and do little for patient satisfaction. No, you don't need an x-ray for everyone who comes in with sinusitis or a back injury, but in some cases you do, and who should be making that decision—your health plan or the doctor who's caring for you? We argue these points among ourselves. No one at our table needs convincing, of course, but it helps relieve our frustration.

We go on to talk about coding. This is where we are told we can make a difference in our ever-decreasing salaries. We don't like to talk about salaries. It is generally assumed that we make oodles of money, and to complain sounds so selfish, but we also have expectations. One of them is to at least get a cost of living raise every year. The media proclaim how great the economy is, yet I can't keep up with cost of living increases. In fact, I now make 20 percent less than I did three years ago! About this time the sun begins to stream in the window, blinding everyone on one side of the table. We shift our chairs and crowd together on the shaded side. As much as it annoys us, somehow that ray of sunshine also symbolizes our hopes on this cold winter morning.

Minnesota is very unfriendly to doctors, especially those in private practice. Currently, more than 5 percent of my salary goes to the MinnesotaCare "provider tax." That's my son's college fund. Does any other business work this way? Do grocers pick up the cost of food stamps? Do lawyers pay for public defenders? In a time of government surpluses, why does this tax still exist? When you own your own business, you get paid when there is money left over, but you pay the government its percentage off the top.

MinnesotaCare taxes are only part of the problem. Insurance companies decide how much they will pay and what costs they will cover. We discuss reimbursement for treating depression, or rather, the *lack* of reimbursement.



Apparently, insurance companies will pay us to diagnose depression, but not to treat it. We should send our patients, many of whom we have long relationships with, to a psychiatrist they don't know and probably won't go to even if they can get an appointment. We continue to treat our patients and accept the fact that we won't be paid.

Again we argue the point among ourselves. I feel the muscles in my shoulders getting tight, and the annoying twitch in my left eye is back. A few more pieces of bad news round out the morning. I glance at the clock and am relieved to see that we're almost out of time. I have survived another meeting! But not so fast. A letter from the medical director of one of the insurance plans for which we provide care is passed around. The plan expects a big loss on operating costs, the letter states. Nothing new in that. But it goes on to say, "Probably the most important solution is increasing awareness for each and every primary care physician that in the managed care world, the patient is potentially their *adversary*." I feel the coffee rise in my throat. I can no longer reconcile the two roles I am supposed to play. This has been the plan all along, only no one had put it into words before. The managed care organizations make us dependent on them for our survival. First we have to sign up with one of the big managed care players if we want to see patients. Then they wear us down little by little, taking away our dignity, our autonomy, and now, our ability to do what we're trained to do: treat patients.

I look across the table at one of my partners. Here is a man I've known for just five years, yet if we could choose our family, I would include him. I trust him with my patients and with my own family. As I squint against the sun I can see only his downturned face, yet I feel his conflict as strongly as my own. He looks defeated, hopeless. I want to scream and shout: "This isn't right. This goes against not only the Hippocratic oath but everything I believe in. How can this profession that I love so much be going so wrong?" None of us feels like talking anymore. The front desk interrupts. Patients are waiting.

We get down to the practice of medicine: seeing patients, using our best judgment to cure what ails them or giving support when we can't. We meet in the office throughout the day, but there is little conversation. I try to go on as usual, but with each patient I second-guess my decisions. Am I treating patients or satisfying their health plan?

I've always disliked being a gatekeeper. Even the term is demeaning. At a time when it should be glorious to be a doctor because of the many advances and new treatments, I am stuck controlling costs. I feel angry, cheated. This is not why I went to medical school. I read about a new medicine that is safer than its old counterpart, but I know the health plans won't cover it. Here is where the battle lines are drawn. On one side are insurance companies trying to control costs. Employers demand it and government supports it. On the other are the rights of patients to get the best medical care available. Where do I stand? Do I even have a role to play or am I just a puppet?

My day drags on. I feel burdened. The irony of the situation plagues me. Am I to appear to be a caring person, while secretly plotting to provide the cheapest care possible? In the managed care world, doctors and patients are enemies. It's a war in which everyone loses. I've seen the casualties already. I've watched my partners work second jobs to maintain their standard of living while their income fades. I've seen patients denied treatments. I've watched the respect for my profession erode as terms like "provider" become synonymous with "physician." We spend our business meetings discussing how to stay in business, with less and less time spent on education. Why bother? Managed care encourages mediocrity. There is no point learning about the latest medicines or treatments if you can't use them.

As I near the end of my day, I make a mental note to order a pizza before I leave the office. I notice that the lights are turned off in two of my rooms, a sign that my staff is ready to go home. As I approach the last room, I see a thick chart and my heart sinks. This appointment will surely be a long one. I open the door to see one of my fondest patients, an elderly woman with several medical problems. She smiles brightly as I enter the room. "How is that little boy of yours? Do you have any pictures?" I happily oblige her and pull the pictures from my pocket. We chat for a little while and then I review her list of medicines, determine what laboratory tests she needs, update her prescriptions, and make sure she is doing as well as can be expected. As I get ready to leave, she stops me, grabs my hand with her frail ones, and thanks me for taking the time to keep her healthy. In that moment, as I look back into her trusting eyes, my heart lightens. I have found what has eluded me all day: hope. **MM**

*Noël Radcliffe is a physician with France Avenue Family Physicians in Edina, Minnesota.*

# MSBC takes care of everything you need.



Your colleagues have honored you by electing you to serve as an officer of your society. They respect your professionalism and leadership skills. You've got the ideas and ambition it takes to make your society an integral part of your profession.

However, the thought of you and your office staff taking time away from patients to manage the day-to-day activities of your society somehow takes away the thrill of what should be a very exciting time for you.

Management Services By Choice (MSBC), a program of the Minnesota Medical Association, can help. MSBC offers a wide range of affordable, efficient services designed to meet the administrative needs of medical societies, large or small. Our professional staff will work directly with you to expand, improve, or develop new programs to best serve your membership.

**Here are some examples of what our clients say about us:**

**"I wholeheartedly encourage any specialty organization to engage this highly professional management service. It is well worth the minimal expense involved."**

**"I don't know how you do it all the time, but the meeting was fabulous! It couldn't have been better, it couldn't have been more precise, and everything worked. You are fantastic!"**

MSBC
MANAGEMENT SERVICES BY CHOICE
A PROGRAM SPONSORED BY THE MMA

**For more information, call 612/378-1875 or 800/342-5662, or visit our Web site at www.mnmed.org/MSBC.**

# Lament of the Older Generation

*By Andrea Carlson and Paul Odenbach*

Sung to the tune of "American Pie" by Don McLean



A long long time ago, I can still remember
how those drugs were merely penny cheap.
And I had no idea then,
way back in 1910,
that the cost of drugs would be so steep.

LBJ in the '60s made a promise
to take care of me, my friends Bob and Thomas.
That Great Society it's dwindled,
I feel like I've been swindled.

Now it's the '90s and it's tough,
the drug companies are playing rough.
I think that I have had enough
of drugs that cost too much.

My, my, what has gone awry?
Medical costs are way too high.
And the government is telling us the well has gone dry.
Whatever happened to my piece of the pie?
Whatever happened to my piece of the pie?

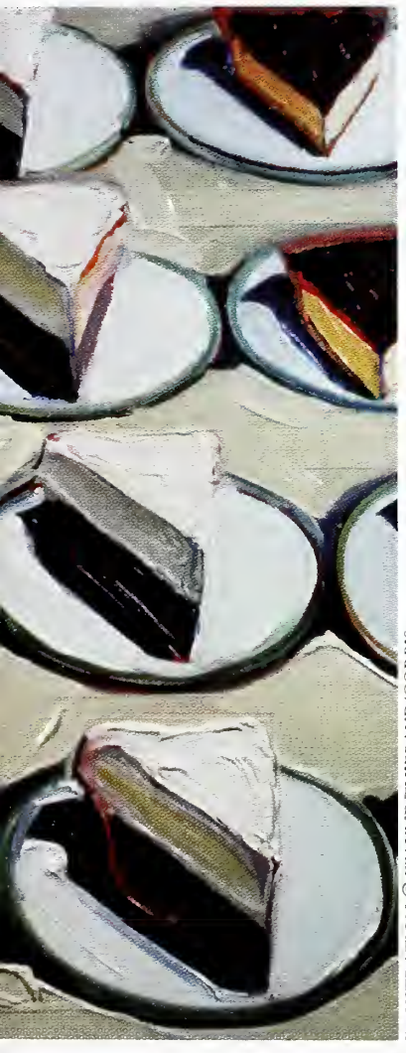


ILLUSTRATION © WAYNE THIEBAUD/CORBIS

Now for 10 years I've been on my own,
without the company insurance that I had known.
It's hard not being insured—it's quite a task.
I've got sugar diabetes or so they say.
Don't think I can make it long if I have to pay
all of the bills, straight out of pocket, with cold hard cash.

Well, the insurance company won't take me
'cause they say I'll kill their business—oh, can't you see.
It will work out somehow.
I just wish that time were now.

'Cause it's hard enough to be in the hands of the gov,
say nothing about losing the one that you love.
I never used to do the bills all by myself,
but the kids they're great and come to visit me.
They bring the grandkids and the drugs I need.
I sure am rich—except for my health.

It's frustrating not to be able to run
with the grandkids when they all have their fun.
But I'm pulling through OK.
It just makes me want to say ...

My, my, what has gone awry?
Medical costs are way too high.
And the government is telling us the well has gone dry.
Whatever happened to my piece of the pie?
Whatever happened to my piece of the pie?

*Andrea Carlson and Paul Odenbach are second-year medical students at the University of Minnesota-Duluth School of Medicine. They wrote these lyrics as part of a project for a course in medical sociology and health care economics/managed care.*

# Managed Care Finds Itself in Dire Straits

**OVERZEALOUS ATTEMPTS TO CUT COSTS HAVE BROUGHT MANAGED CARE TO THE POINT OF COLLAPSE, ARGUES THIS PHYSICIAN-AUTHOR.**

By Ronald J. Glasser, M.D.

Managed health care, in its various guises from HMOs to PPOs, has been in place in Minnesota for at least 20 years and in the rest of the country for most of the last decade. Ten years should be enough time for any idea to prove its worth. Yet, every consultant, economist, stockbroker, medical supply company executive, and pharmaceutical CEO I know believes that corporate medicine has failed to deliver its promised quality care at reduced cost. A victim not only of its own unmet promises but also of its own excesses, managed care is now facing its own demise.



ILLUSTRATION © IVAN LEE SANFORD/SIS

Today, when physicians mention cancer, instead of worrying about living or dying, patients wonder if they have the right health insurance or if their health plans will allow them to be treated at university hospitals. Childless women put off the simplest fertility workups, knowing that an evaluation in their medical record would probably lead to the denial of future health care coverage for any disease of the vagina, uterus, or ovaries. While managed care executives make hundreds of millions of dollars, *plus* options, a whole generation of parents stays in dead-end jobs to make sure their chronically ill or handicapped children continue to have even marginal health care coverage.

## One Kind Fits All

In 1994 the national debate on health care reform ended by default with managed care firmly in charge of the health of the nation. At the time, 33 million Americans were without health insurance. By the end of 1999, the number of uninsured had reached 44.3 million. Meanwhile, the rest of us have had our co-pays increased and our prescription drugs restricted or replaced by corporate-sanctioned medications. Hospital stays have been reduced, pre-authorizations instituted for specialized medical tests, and treatment programs and practice patterns standardized to comply with a one-kind-fits-all management style.

The irony of today's medicine is that despite an arsenal of new medical and surgical techniques that allow physicians to treat and, at times, cure conditions that only a few years ago were barely diagnosable, victory is slipping away. The failure of today's health care has little to do with the ability of physicians to care for the sick and a lot to do with the constraints of managed care.

Today we can digitally reconstruct the body's organs in 3-D, stop heart attacks with tPA injections, use plastic lenses to return people's sight, and nurse 1-pound premature babies to robust health. But we are stymied by managed care's self-serving and hidden agendas, refusal to accept realities of daily medical practice, and lack of common sense. Managed care is geared to the survival of the system rather than to victory over disease and injury.

## A Short History

Managed care has long been a part of medicine, if only a small part. Originally, it was called contract medicine. In the 1930s, labor unions provided health care for their



members, and in the 1940s large companies such as Kaiser Aluminum hired doctors and contracted with clinics to provide medical services at fixed monthly rates for their employees and families. The idea was as simple as it was lofty: Put together a group of physicians willing to supply quality medicine at a fixed monthly rate unrelated to utilization, but high enough to cover preventive care for the healthy and for the doctors' salaries and overhead. And it worked, but only for a while and only in certain parts of the country, most notably the coal mining regions of Kentucky and West Virginia and the industrial growth areas of Northern California.

In the 1960s, health care became a right, and with federal authority to deduct health care costs as a pre–tax dollar benefit, employers added health benefits to employee wage packages instead of merely increasing salaries. Medical advances and new technologies of the 1970s and 1980s increased utilization, and health care costs soared. Pension and benefits managers, desperate to gain control over rising health costs, took another look at contract, or prepaid, medicine as a means of controlling expenses.

Entrepreneurs, groups of physicians, clinics, and networks of hospitals formed systems to give the companies what they wanted: cheaper health insurance coverage for employees at predictable yearly rates. Health care gurus—including Paul Ellwood and his Jackson Hole Group*—promoted a coupling of fixed premiums with close "management" that proved attractive to corporations. These new systems offered the concept of total care. Not only did they offer health insurance but, unlike the more conventional insurance plans, they offered guaranteed low premiums because they would also supply the physicians and the hospitals. The new corporations would control and even lower costs by influencing the type, kind, and frequency of service. It was the old idea of contract medicine resurrected with a vengeance into a corporate model, a concept that proved irresistible to business leaders. These new organizations grew in both size and complexity, providing care to ever-larger numbers of employees as more and more businesses left their old indemnity insurance plans to join them. Whatever else historians might say about managed health care, the reason for its very existence as well as its phenomenal growth has always been price.

* The Jackson Hole Group recommended controlling the fees to hospitals and doctors and using fixed premiums to encourage companies and enrollees to choose less expensive plans, while giving overall control of the system to independently organized analysis staffs outside the medical profession.

## Managed Care at What Cost?

Today, however, the foundation of managed health care is crumbling. For the first time since the introduction of managed care, the percentage of Americans calling for a complete overhaul of the U.S. health care system is increasing. One in six Americans now feels that the managed health care system needs to be completely reordered, while eight out of 10 believe that managed care has gone too far in cutting costs, controlling access to physicians, and denying care.

In two prescient articles published in the *Harvard Business Review* in 1989, Regina Herzlinger, an economics professor at Harvard Business School, explored the growth of health care costs resulting from the misadventures of the new managed health care corporations and the activities of their chief executives and financial officers. "The entrepreneurs saw a big opportunity in [the] health care industry and exploited those opportunities," she writes. In a section entitled "What Went Wrong," Herzlinger quotes a survey of all health care companies publicly listed at the time, showing that 50 percent of the CEOs, despite their glowing predictions that business strategies could control health care costs, admitted privately that health care costs would surely continue to rise. Ultimately, a corporate model of health care is not the best model for treating the astonishing diversity of medical problems. As Herzlinger concludes, "The new organizations have almost universally failed to meet their promises. ... [T]he health care entrepreneur's obsession with finances and fixation on the market, the focus on administrative process rather than results, led to poor long-term planning and disastrous decisions."

The U.S. Public Health Service also looked at managed care costs. In a 1997 *New England Journal of Medicine* article comparing Canadian and U.S. health care costs, the authors concluded that "reducing admin-



istrative costs to 'Canadian levels' would save enough money to fund coverage for all uninsured and underinsured Americans. ... The United States spent 37 percent more in real dollars in health care administration in 1979 than in 1938." The authors noted, "The recent quest for 'managerial efficiency' has amplified inefficiency: cost restraint and utilization review programs have required an army of bureaucrats to eliminate modest amounts of unnecessary care. Each piece of medical terrain is inspected except that beneath the inspectors' feet. Paradoxically, the [administrative] cost of managed health care is among the fastest-growing segments of the health care economy."

What the executives of managed care refuse to acknowledge is that each new control, each new step toward greater micromanagement and less access to treatment—such as "preauthorization" for imaging studies and "restricted formulary" use of drugs—is quickly followed by the hiring of additional administrative personnel to monitor compliance, an increase in paperwork, and the development of more complicated usage guidelines and outcome criteria to ensure compliance. The increase in both fixed and variable costs inevitably turns out to be greater than the originally anticipated savings.

Despite pronouncements on the efficiencies of managed care, it is not the growth of medicine that has fueled the recent rise in health care costs, but the growth of managed care itself. The number of physicians in the United States has grown by 20 percent in the last 10 years, while the number of hospital administrators, health care bureaucrats, and managed health care managers has increased by more than 600 percent. In every independent study it has been the increase in administrators and administrative tasks, not new procedures, lab tests, or treatment protocols, that has paralleled the increases in health care costs.

Almost a decade ago, Milton Friedman, the Nobel laureate in economics, showed that the cost of physician services as a percentage of health care expenses had changed little since the Depression. In 1929 physician costs were 27 percent of total health care expenses; after World War II, the percentage was 25; it remained at 20 percent of the total heaith care dollar throughout the 1960s, 1970s, and 1980s, the decades of the fastest growth in health care costs. By the mid-1990s, physician costs had decreased to less than 16 percent of total health care expenditures.

## Distorted Priorities

Paul Ellwood, clearly having second thoughts about an industry he helped create, admitted in a moment of candor that "health maintenance organization," the term he'd coined 25 years ago, had become a misnomer. He told the *New York Times* in June 1998 that today's HMOs have absolutely nothing to do with health or the maintenance of health and that the original idea of an HMO run by physicians, with an equal emphasis on cost and quality, has been replaced by executives who are concerned only about profit margins.

Ellwood makes clear what everyone inside the industry already knows: "HMO" has come to stand for an industry devoted not to the management of care but to the management of costs, whereby 25 to 35 percent of every health care dollar goes to overhead and profit, and the percentage of money spent on patients is listed in the company's financial statement as the monthly "medical-loss ratio."

Across the country, full-page newspaper ads illustrate managed care's distorted priorities and goals:

- "We offer an extensive and unique program of reporting quality, accessibility and satisfaction data to consumers at the clinic and physician level—through the Internet and other mechanisms."
- "We developed a doctor-led organization that develops nationally recognized medical best practices using the best medical minds in our community."
- "We pioneered a unique approach to choosing providers through our Consumer Choice program that is based on developing and presenting information that helps consumers choose between care systems and physicians, based on quality, satisfaction, credentials, service and value."

There is no mention of disease. Indeed, today's HMOs never mention disease. They neither brag about nor advertise their experience in treating cystic fibrosis or multiple sclerosis, nor do they promote the expertise of their subspecialists in cardiovascular surgery or AIDS management. Apparently, the last thing a health plan

wants is to become known for expertise and quality care in the treatment of complicated or expensive diseases, and thereby run the financial risk of having the sick enroll with their system. It is definitely not cost-effective to have a large proportion of the community's infirm or ill in your plan.

The real triumph of the managed care industry has been the marginalization of the professional. Managed care proponents saw that the freedom of patients to choose their doctor, physicians' unmonitored choice of prescriptions, direct negotiation between the physician and patient in regard to both care and fees, the whole institution of private practice, and the professional control over licensure led to an inefficient system that had to be replaced by independent centralized oversight and control. The assumption was that employed managers would be less guided by vested interest than the professionals. In short, decisions once made by the doctor and the patient were instead to be made by distant and supposedly wise managers.

Of course, it's not working that way. As J.D. Kleinke writes in his book "The Bleeding Edge," "The typical administrator has little sensitivity to the realities of medical practice. ... There is a cultural disconnect between what they are managing and what physicians confront on a daily basis."

Today, it is a safe bet that few HMO enrollees know the name of their health plan's CEO, or have any idea who it is that denies their claims, changes their medications, or refuses to authorize a recommended treatment. Nor are patients aware that the reason their doctor spends only 10 minutes during an office visit is that the office manager has been given a production benchmark by the corporate headquarters of no less than four patients per hour, per doctor, per clinic.

**IT IS A SAFE BET THAT FEW HMO ENROLLEES KNOW THE NAME OF THEIR HEALTH PLAN'S CEO, OR HAVE ANY IDEA WHO IT IS THAT DENIES THEIR CLAIMS.**

## An Ailing System

The impending demise of managed care is clear. Most managed care companies are either bankrupt, near foreclosure, or in terrible financial straits (Harvard Pilgrim Community Health in Boston is one grim example). In July 1997, actuaries placed the market capitalization of the health care service sector at more than $106 billion; by August 1998, that capitalization had dropped to less than $67 billion—and it continues to plummet. In the mid-1990s, a venture capitalist who wanted to purchase an HMO would have had to pay close to $2,000 per member; last month a health plan in the Midwest sold for $350 a member, and the plan was lucky to get that much.

Meanwhile, a regular pruning of health care executives has occurred across the country. Columbia CEO Rick Scott resigned; Oxford CEO Steve Wiggins stepped down; FPA CEO Seth Flam resigned right before his company filed for bankruptcy; Malik Hasan of Frontier Health System retired days before FHS declared a 48 percent drop in its second-quarter earnings for 1998.

Health care consultants are now recommending that managed care companies transform themselves into data processing or information systems companies. And they are advising hospitals that have merged with HMOs to get out of these mergers and once again become for-profit hospital systems.

Managed care is being pushed to the brink of insolvency by a corporate America that no longer believes in the industry's pledge to reduce costs. Herzlinger, the economist, says, "Nowadays, if you talk to corporate CEOs, you hear that managed care is no longer the magic bullet, it's more like a gun to their head."

The crucial question now, of course, is what or who will fill the void left by the departure of managed care. Here, the experts are split. Some predict that hospitals will become the dominant force in American medicine, basically because they have the organizational structure and computer systems to run our population-based health care system. Others are convinced that after a decade of being demoralized, physicians will assert their power and once again direct the course of medical care. After all, we are the ones caring for patients: We write all the orders and decide who is admitted to the hospital and who is discharged, and we still write all the scripts. Somehow, that got lost along the way. We almost gave it up once; I doubt we'll make that mistake again. **MM**

*Ronald J. Glasser is a pediatrician with Pediatric Consultants in Minneapolis. He is the author of several books, among them the best-selling novels "365 Days" and "Ward 402." His most recent book, "The Light in the Skull," was published by Faber & Faber. He has twice been nominated for a National Book Award.*

*This article is adapted from "The Medicine Wars," a forthcoming book and possible HBO series. Parts of the essay appeared in the March 1998* Harper's Magazine *article "The Doctor Is Not In: On the Managed Failure of Managed Health Care."*

# GROUP PURCHASING



Brought to you by a partnership of

## Minnesota Medical Business Resources and Triium, Inc.

### Product and Service Coverage

- Office Supplies and Furniture
- Office Equipment
  Copiers, facsimiles, scanners, and more
- Medical Supplies
- Medical Equipment and Equipment Repair
- Employee Recruitment Services
- Individual Insurance Programs
  Life, health, long-term care, disability
- Employer-Sponsored Retirement Plans
- Printing Services
  Forms, statements, mailing services, and more
- Color-Coded Record Systems
- Promotional Merchandise
- Collection Services
- Cellular Phone Equipment and Air Time
- Auto Leasing and Purchasing Services
- Payor Reimbursement
  Auditing & Consulting
- Credit Union Services
- Secured Records Destruction
- Courier Services
- Payroll Processing Services

### Group Purchasing Advantages

Group Purchasing provides customers with a comprehensive purchasing program encompassing a large variety of services and products that supports physician practices' outsourcing needs. The goal of the program is to ensure customers receive excellent pricing and superior performance in all products and services offered.



### Group Purchasing Benefits

The Group Purchasing Program has experienced an average of **15%** savings for its customers. Other benefits of the Group Purchasing Program include negotiation and administration of supplier contracts, continual expansion of suppliers and services offered, volume and cost savings reporting for the individual practice, customer advocacy with suppliers, and dedicated, professional purchasing management.


TRIIUM, INC.

*Advancing Health Care with Data-Driven Solutions*

Call 612/797-0285 x109

e-mail: kmadsen@mspnetwork.com

internet: www.triium.com

MMBR

Minnesota Medical Business Resources Owned By MMA & HMS

**Minnesota Medical Business Resources**

Call 612/623-2860

e-mail: mmbr@mnmed.org

internet: mnmed.org/mmbr

# Faultfinding: Health Care No Cure for Woes

*It's time to quit pointing fingers.*

*Physicians, health plans, employers, and consumers must all work together to control health care costs.*

BY MICHAEL SCANDRETT

The surge in health care costs in recent years has made finger pointing an especially popular industry pastime. Employers pressure health plans to control costs. Health plans in turn pressure physicians and hospitals to reduce fees. And consumers demand more from all three, yet are unwilling to pay more themselves. But what has all the blaming achieved?

After some years of temporary relief, health care costs are rising again at double-digit rates, making employers push harder than ever for cost controls. Meanwhile, Minnesota health plans continue to lose millions of dollars—$58 million in 1998, the third consecutive year of losses. Physicians' incomes are squeezed while patients' demands are on the rise. Poll after poll shows that consumers are more nervous than ever that health care will become unaffordable. Clearly, a new plan for cost control is needed, but we won't achieve it by pointing fingers.

We cannot keep health care affordable without "managing" the health care system. Even if traditional managed care organizations such as HMOs were outlawed, the managed care techniques pioneered by HMOs would continue. Consumers, employers, and government programs will never go back to the "money is no object" mentality of the 1970s and 1980s, when insurers paid for anything and everything.

Yet today, HMOs and other managed care plans are a convenient target for purchasers who don't want to pay more, and for consumers and providers who want everything paid for. But what solution do these critics propose? The choices are either to eliminate managed care techniques for controlling costs or else to improve them. The former is untenable and the latter requires cooperation.

## Provider Networks

Before the era of controls, the traditional health insurance system paid retail prices and generated costly excess capacity. Providers had no incentives to control their fees, so costs escalated rapidly. Nor was there accountability for the quality or credentials of providers.

Employers and health plans responded to these failings by creating provider networks, which allowed them to "right size" their provider capacity, screen out unqualified providers, and negotiate discounted fees in return for guaranteed patient value. Network health plans save consumers more than 12 percent over traditional health insurance plans, while providing quality that is as good or better. As a result, purchasers continue to choose them. To increase consumer choice, many employers now offer point-of-service products that enable consumers to go to any provider they want by paying a higher copayment.

## Utilization Review

Another tool used by managed care organizations is utilization review or health plan review of physicians' orders. Research has shown that the old fee-for-service system paid for a lot of unnecessary and inefficient care. Health plans and employers responded by becoming gatekeepers and reviewing physicians' orders. Although eliminating this practice would give physicians more freedom, it would also increase costs by 4 percent, or $228 a year for a family, a price most consumers and purchasers are unwilling to pay.

To reduce the frustration for physicians and ensure patient quality, Minnesota's health plans years ago did what UnitedHealth Group recently announced it will do—they greatly limited the types of physicians' orders reviewed. In addition, Minnesota health plans have established internal review and appeal processes so that physicians or patients can make sure health plans' decisions are appropriate. In April, a new external review process will enable patients in state-regulated health plans to seek review by an independent medical review panel outside the health plan as well.

## Drug Formularies

Health plans also use prescription drug formularies, which enable plans to negotiate discounts and provide prescription drugs for patients at a lower cost. As prescription drug use rises, formularies will become an even more important means for holding costs down. Minnesota's health plans have attempted to make formularies more convenient for physicians by developing the Minnesota Outpatient Formulary Guide, a pocket-sized booklet containing drug formularies used by most health plans in the state for the most commonly prescribed drugs.

## Preventive Care

Finally, health plans manage care and reduce costs by paying for preventive and primary care to improve early detection and treatment of diseases such as cancer. Minnesota exceeds national averages in many areas of preventive care, largely through the joint efforts of physicians and health plans. No one believes we should go back to the days when preventive care was not encouraged or covered.

These are just a few of the managed care approaches used by Minnesota's health plans. Consumers and employers continue to choose these kinds of health plans and will likely continue to choose them in the future. As technology and drugs improve (providing significant health benefits but also adding enormous costs), and as consumers want more and more, there will be an ever-greater need to balance the demands for health care with affordability.

## A Group Effort

To find that balance, health care stakeholders must collaborate. That's why the Minnesota Medical Association and the Minnesota Council of Health Plans are participating in a broader coalition of health care and business groups working on solutions (see "Community Forums Bring Together Minnesota's Health Care Players" in the January 2000 *Minnesota Medicine*). The coalition has held 23 community discussion groups in five cities across the state to help educate consumers about health care and to seek their input on how to resolve the major medical issues facing the state. Participants in the forums cited costs as their No. 1 concern and, when asked, chose health plans with managed care features.

Physicians, health plans, employers, and consumers must continue to work together to address the demands in health care today while keeping it affordable. "The antagonistic model doesn't work anymore," Paul Sanders, M.D., CEO of the Minnesota Medical Association, told the *Star Tribune* in early January. "The plans are facing crises, the physicians are taking salary cuts, and the hospitals are losing money. If the stakeholders don't talk to each other, the problem won't get solved." MM

*Michael Scandrett is executive director of the Minnesota Council of Health Plans, a trade association representing Minnesota's 10 nonprofit health plans.*

# HealthPartners®
*Institute for Medical Education*

CME

## Continuing Professional Development 2000 Offerings

| | |
|---|---|
| Cardiology Today | Every Third Tuesday |
| Family Medicine Today | March 9 – 10, 2000 |
| OB/GYN Update | April 27 – 28, 2000 |
| Burn Care Today | May 11 – 12, 2000 |
| Critical Care | November 9 – 10, 2000 |
| Strategies in Primary Care Medicine | November 30 – December 2, 2000 |
| 22nd Annual Cardiovascular Conference | December 7 – 8, 2000 |

In 1996, the HealthPartners Institute for Medical Education (IME) was created to support the ongoing development of excellence in clinical practice through a wide variety of educational services. The Institute has development, coordination and oversight responsibilities for the undergraduate, graduate and continuing education initiatives for health professionals within the various divisions of HealthPartners including Regions Hospital.

For Further Information Contact:

*Institute for Medical Education*
*Continuing Professional Development*
*640 Jackson Street*
*St. Paul, MN 55101*
*Phone 651-221-3992 • Fax 651-292-4773*



# Count all the ways you can save with Prudential auto insurance

**Prudential adds convenience**

Wont to stop writing checks for outo premiums? Our eosy poyment option ollows outomotic monthly withdrowols from your bonk occount

MMBR
Minnesota Medical Business Resources
Owned By MMA & HMS

Prudential has teamed up with the Minnesota Medical Association to bring you auto coverage with hard-to-beat rates and easy-to-like service.

**More discounts add up to more savings.** Why pay more than you have to for auto coverage when Prudential gives you so many ways to save money?

- MMA group discount
- Anti-theft devices
- Low annual mileage
- Multiple cars
- Good driving

Plus, a 15% discount if you also have a Prudential homeowners policy.

**Save on time—and hassles.** Our 24-hour toll-free line means fast claims service and processing.

**How many ways can you save? Call for a free quote.**
Get your free no-obligation quote by phone in less than 10 minutes.



**1-800-637-2782**

Prudential

Merostor Insuronce Compony, Chottonoogo, TN 37411, o subsidiory of The Prudentiol Insuronce Compony of Americo. IFS-19991129-A049258

# Late Payment of Physician Claims

## *Results of an MMA Survey*

*Delayed payment of physician claims by health plans is a vexing problem for doctors and their patients. Here's how long Minnesota physicians wait for reimbursement.*

Janet Silversmith

Late payment of physician claims by HMOs and other health plans is a growing concern in many parts of the country. Payment delays can impede physicians' abilities to cover their practice costs and can cause financial problems and anxiety for patients. Various remedies have been tried. Some states have attempted to legislate "prompt" payment (including fining HMOs that fail to comply, as recently occurred in New York and Pennsylvania). And in New Mexico, a group of physicians has collected on outstanding claims by taking slow-paying health plans to small claims court.

Delayed payment of physician claims concerns Minnesota physicians as well. In response to resolutions passed in 1997 and 1998, the Minnesota Medical Association surveyed Minnesota physician clinics in an attempt to quantify payment delays in the state. This article summarizes the results of the survey.

### *Methodology*

The MMA used a survey tool developed by the American Medical Association's Advocacy Resource Center. The survey was customized to reflect the health plans operating in Minnesota, then sent to a small group of clinic administrators to determine its feasibility and applicability. Although the survey was intended to compare payment lags among various insurance products (e.g., ERISA, HMO, commercial insurer, Medicare HMO, etc.), clinic administrators who reviewed it said most clinic practice management systems could not retrieve the needed data. Therefore, the survey instead sought information on the overall payment experience by payer, not by product. In addition to basic demographic information, the final survey asked for (1) the number of days that typically passed from bill submission to receipt of payment for a clean claim based on actual claims experience from January 1998 through June 1998; (2) the number of patient visits for each payer based on actual experience from January 1998 through June 1998; and (3) whether the clinic/practice electronically billed the payer. To help maximize the response rate, the survey was endorsed by both the MMA and the Minnesota Medical Group Management Association.

The survey was mailed to a random sample of 560 Minnesota clinics (clinics with more than one site and with centralized billing received only one survey).

### *Results*

The overall response rate was 14 percent. The responses were from 76 medical practices, representing 221 actual clinic sites (about 25% of all Minnesota clinics), 1,429 practicing physicians, and 1.42 million patient visits. Data for 17 health plans were included in the final analysis.

A common payment standard is 14 days for electronic claims and 30 days for paper claims. Results of the MMA survey showed an overall average (mean) payment lag of 35.3 days (SD=21.3). The median lag was 30 days. Payment times ranged from 7 days to 190 days; the most frequent response (mode) was 30 days.

Figure 1 shows the mean and median payment lags for each of the 17 payers. Thirteen of the 17 payers (76%) had mean payment lags longer than 30 days. The median lag for each health plan defines the midpoint at which one-half of the respondents had payment lags below the median and one-half above. Seven (41%) of the health plans analyzed had median payment lags longer than 30 days.

Although it is interesting to examine the results by payer, physician clinics have relationships with multiple payers, so the impact of payment delays on a given clinic's accounts receivable is a function of that clinic's payer mix. From the MMA's perspective, the mean lag per physician practice is more meaningful. Figure 2 displays the mean payment lag experienced by each of the 76 clinic respondents (note that in many cases the data point reflects the experience of multiple clinic sites). The horizontal dashed line on the graph at 30 days identifies the payment standard. Nearly 62% of clinics (represented by bullet points above the 30-day line) experienced average payment delays in excess of 30 days.

The survey also asked respondents about their number of patient visits from January 1998 through June

FIGURE 1 *Payment delays by health plan*

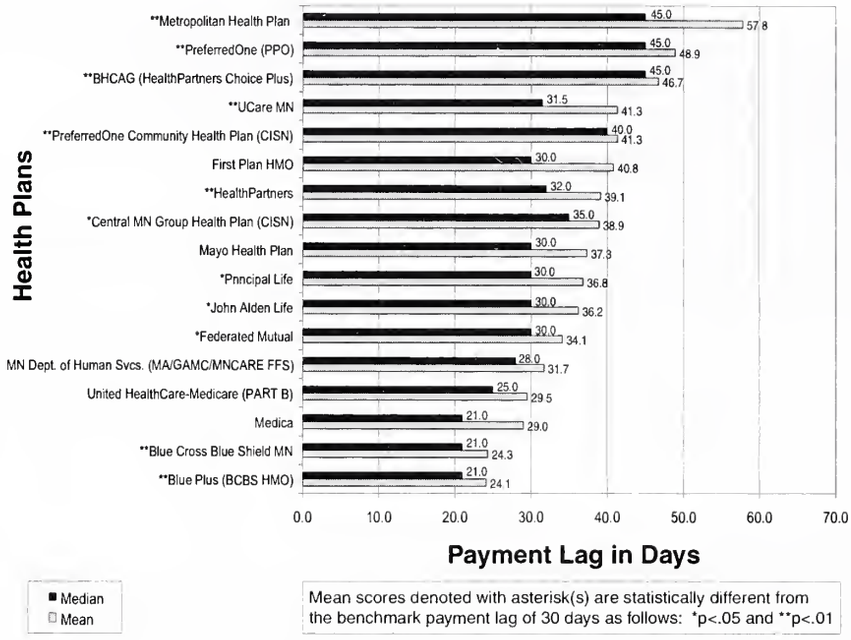
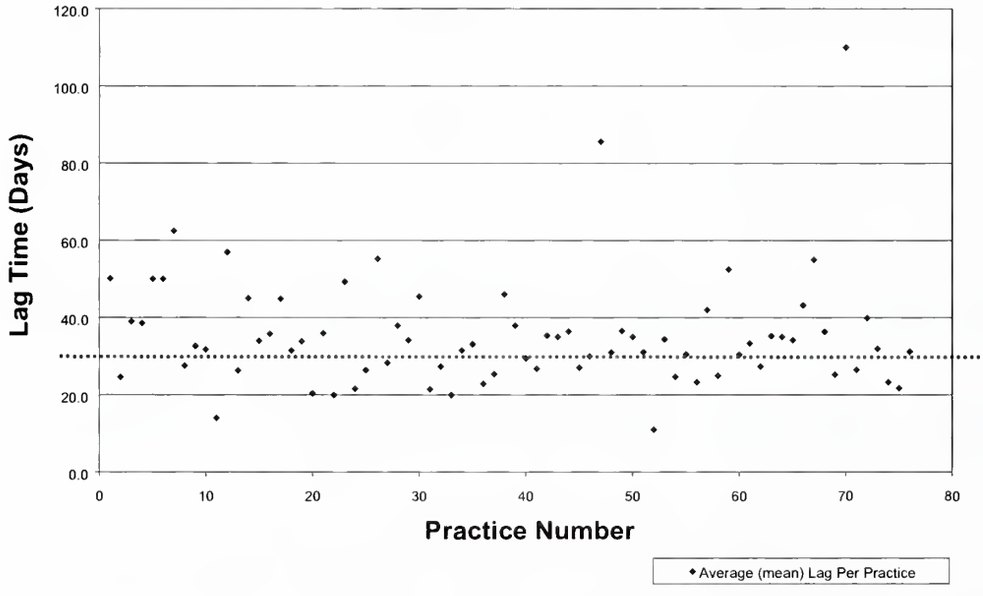



FIGURE 2 *Average (mean) lag per practice*




1998 for each health plan listed. This item takes into consideration the more extensive billing experience that clinics with large numbers of patient visits have with particular health plans, and assigns more weight to those payment lags. For example, a clinic that reported 1,000 patient visits for a particular health plan has more billing experience with that plan than a clinic that reported only 10 patient visits for that plan. The survey results reveal a weighted mean (average) of 24.5 days, a decrease from the overall mean delay of 35.3 days. These data represent the payment delay experience for more than 1.4 million patient visits.

The results were also analyzed from the clinics' perspective. In contrast to Figure 2, which shows that 62% of clinics had an average payment lag in excess of 30 days, on a weighted average basis, only 29% of clinics experienced delays longer than 30 days. Two possible explanations for the discrepancy between the weighted and overall delays are (1) sophisticated billing systems that are able to collect and report patient visits are also able to process claims more efficiently, and (2) clinic practices that have more extensive billing experience (more patient visits) with health plans enjoy faster claims processing and payment.

We also analyzed the impact of electronic claims submission on the timeliness of payment. The results were significant. The average payment delay for electronically submitted claims was 30.3 days; the nonelectronic average delay was 43.6 days ($p < .001$). The average electronic payment delay is surprising, since electronic claims submission is intended, in part, to speed up claims processing, and the standard for prompt payment of these claims is 14 days.

Nevertheless, the MMA supports the use of electronic claims submission as a way to reduce administrative costs and improve claims processing.

## *Policy and Advocacy*

Minnesota is not alone in examining the timeliness of health plan payment of physician claims. Late payment of physician claims has received significant media and legislative attention throughout the country. According to the AMA, at least six other state medical associations have conducted a prompt payment survey based on the AMA model, five are planning to conduct a survey, three have completed an independent survey, and seven are exploring the need to conduct a survey.

As of February 1999, 32 states had passed legislation regulating the prompt payment of claims. Minnesota Statute §72A.17 to 72A.32 defines unfair or deceptive trade practices, including claims processing for health insurers. The law requires reasonably prompt processing of claims but does not define promptness. However, the law does require insurers (including HMOs) to complete

investigations and inform insurers or claimants of acceptance or denial of a claim within 30 business days after receipt of the claim notification. If the investigation cannot reasonably be completed within that time, the insurer must notify the insured or claimant within the time period of the reason the investigation is not complete and the date it is expected to be complete. Health policy insurers are required to provide such notification in writing. Additionally, legislation passed by the 1999 Minnesota Legislature requires HMOs to pay or deny home health care claims within 30 days of receiving the claim. HMOs that do not pay within 30 days will be charged 1.5% interest per month.

Medicare also has established prompt payment standards. Section 1842(c)(2) of the Social Security Act requires that not less than 95% of "clean claims"* be paid within 30 days, or interest must be paid.

## *Conclusions*

Late payment of physician claims is a serious problem for physicians and their patients. The purpose of the MMA survey was to quantify the payment delay problem in Minnesota. The results indicate that physician claims in Minnesota are paid an average of 35.3 days after submission. Nearly two-thirds of physician clinics (62%), however, experienced an overall average delay in claims payment in excess of 30 days. Finally, the results indicate that electronic claims submission speeds claims processing, but not to the extent expected, with an average electronic claims delay of 30.3 days, compared with 43.6 days for nonelectronic claims. The effect of delayed payment on physician clinics is a function of the clinic's patient and payer mix, and the clinic's billing system and processes.

Patients, physicians, and health plans can reduce delays in claims payment. The MMA encourages physicians to examine their clinic's billing processes for opportunities to reduce claims payment time. For example, what is the average delay between date of service and date of claim submission? Are the claims complete and legible? Is the clinic using health plan automated eligibility verification systems? Are duplicate claims being submitted?

Finally, as this article goes to press, the MMA is drafting legislation that would establish a payment ceiling of 30 days for clean paper claims and 14 days for electronic claims. MM

*Janet Silversmith is the MMA's director of Health Economics and Policy Analysis.*

*A complete copy of the results and survey instrument can be obtained by contacting the MMA's Center for Physician Advocacy, 888/662-6774.*

*For Medicare's purposes, a "clean claim" means a claim that has no defect or impropriety (it must include all required substantiating documentation) or particular circumstance requiring special treatment that prevents timely payment.




**Continuing Medical Education**

**sponsored by Allina Health System**

**February 2000**

**16** **Advanced Cardiac Life Support (ACLS) Renewal**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Abbott Northwestern Hospital, Minneapolis

**17** **Cardiovascular Rehabilitation Workshop**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Mercy Hospital Heart Center, Coon Rapids

**24** **Advanced Cardiac Life Support (ACLS) Renewal**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Mercy Hospital Heart Center, Coon Rapids

**March 2000**

**2 & 9** **Advanced Cardiac Life Support (ACLS)** 2 day program
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: United Hospital, St. Paul

**29** **Principles of Diabetes Management: Basics and Trends**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Abbott Northwestern Hospital, Minneapolis

**April 2000**

**10 & 11** **Advanced Trauma Life Support (ATLS)**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: United Hospital Conference Center, St. Paul

**12** **Advanced Diabetes Management: Complications & Trends**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: United Hospital, St. Paul

**May 2000**

**5** **1st Annual Vascular and Echocardiography Conference**
PRESENTED BY: Minneapolis Heart Institute
LOCATION: Airport Hilton, Bloomington

**23 & 24** **Strengthening Professional Nursing Practice for Excellence in Care**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Earle Brown Heritage Center, Brooklyn Center

**September 2000**

**16** **2000 Current Trends in Ophthalmology**
PRESENTED BY: Phillips Eye Institute
LOCATION: Phillips Eye Institute, Minneapolis

**18 & 19** **Advanced Trauma Life Support (ATLS)**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: United Hospital Conference Center, St. Paul

**October 2000**

**13** **Minnesota and the Aging Driver: What are Your Options as a Professional?**
LOCATION: Earle Brown Heritage Center, Brooklyn Center

**26 & 27** **2000 Front Line Neurology Symposium**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: DoubleTree Hotel, by Mall of America, Bloomington

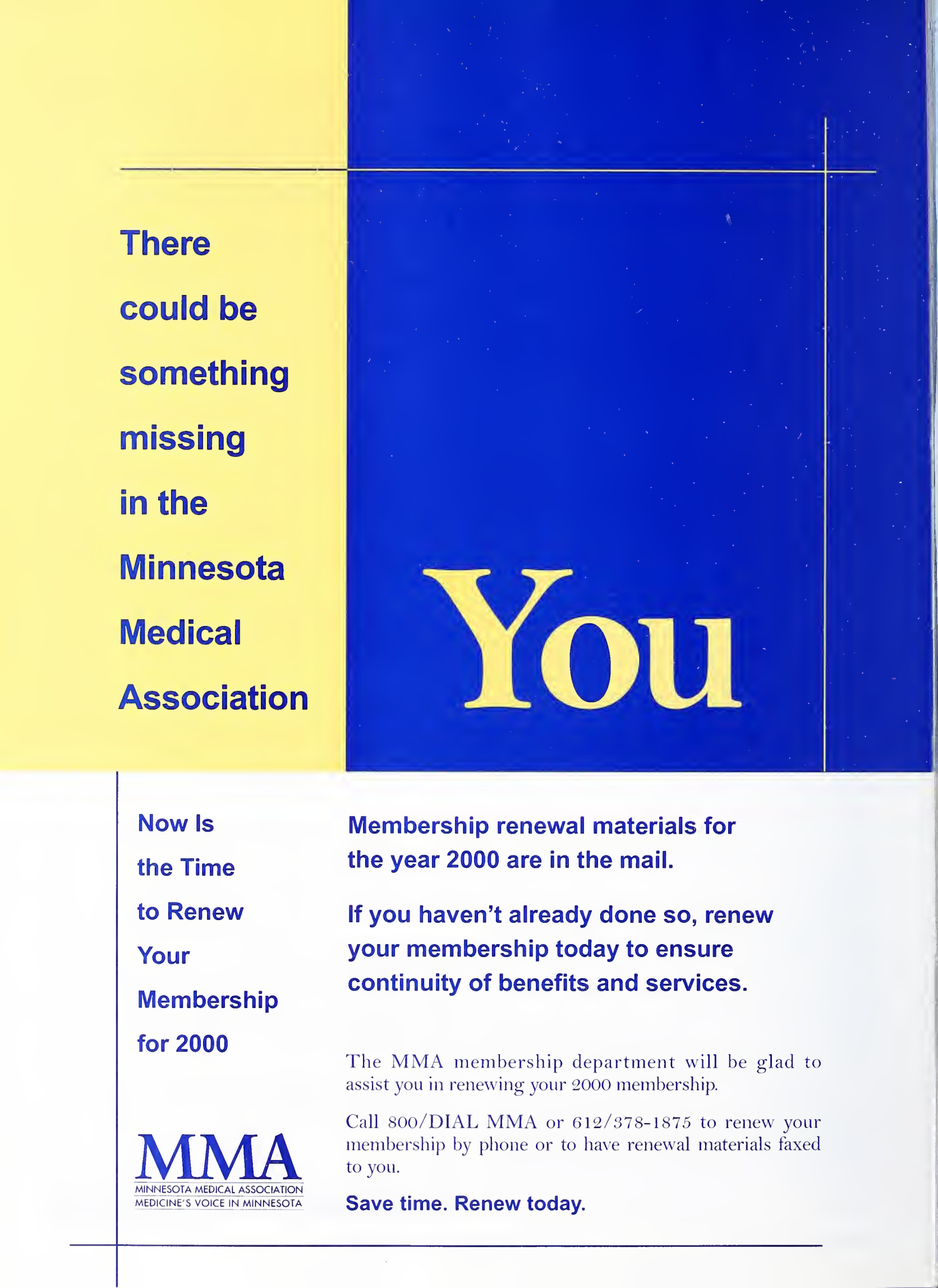
**For more information contact:**
Allina Education and Research Administration at (612)992-2424



ALLINA.
HEALTH SYSTEM

© 1999 Allina Health System

**Visit the Allina CME Calendar at http://www.allina.com**


There could be something missing in the Minnesota Medical Association
You
Now Is the Time to Renew Your Membership for 2000
Membership renewal materials for the year 2000 are in the mail.
If you haven't already done so, renew your membership today to ensure continuity of benefits and services.
The MMA membership department will be glad to assist you in renewing your 2000 membership.
Call 800/DIAL MMA or 612/378-1875 to renew your membership by phone or to have renewal materials faxed to you.
Save time. Renew today.
MMA
MINNESOTA MEDICAL ASSOCIATION
MEDICINE'S VOICE IN MINNESOTA

# MMA Legislative Preview

## 2000 Promises Short Session, Big Surplus, Complex Issues

BY DAVE RENNER

Although budget forecasters predict another large surplus for Minnesota—$1.6 billion by June 30, 2001—this year's session of the Minnesota Legislature is expected to be short and light on issues.

February 1 marks the start of the session that falls in the second year of the state's biennial budget and will likely end in mid-April. Historically, sessions in even-numbered years have been reserved for "emergency" issues and action on the state's capital bonding bill. This year is expected to be no different.

In November 1999, the Department of Finance released its latest budget forecast for the rest of the biennium, showing that the state expects another large surplus. The budget figures ensure that additional tax relief will be a major topic of discussion this session. The debate will focus on the form and size of the relief. Will there be another one-time tax rebate, a significant reduction in automobile license fees, a permanent cut in the state sales tax, or property tax cuts?

The Minnesota Medical Association, along with 21 other health care provider organizations that make up the Coalition for Replacing the Provider Tax, will continue to remind legislators of the selective, regressive "sick tax," and encourage the Legislature to use a portion of the budget surplus to begin replacing that inappropriate tax. Because this is an election year, and because the provider tax is relatively unknown to most consumers, the issue may not carry enough political "bang" for the Legislature to act this year.

In areas besides tax relief and capital bonding, most legislators are repeating the mantra "wait until next year." They want to keep the session short so they can get home to campaign for reelection.

Polls are revealing that two health-related issues are crucial to voters. One is concern about health care costs. Health care premiums are increasing by percentages in the double digits, and voters, especially employers, are worried that they won't be able to afford to provide health care benefits to their employees. The complexity of this issue is not conducive to a quick solution during a non-budget, short session. Most likely, this will be a predominant issue in 2001.

Voters are also concerned about data privacy. This issue surfaced in the media last summer when Attorney General Mike Hatch brought a lawsuit against banks that were selling consumer information to marketers (see the profile, page 8). It has also been raised at the federal level because of new Health and Human Services regulations on the use of electronic medical records. Increasingly, consumers fear that their sensitive medical infor-

# *Term Life Insurance Online*

## www.mnmed.org/mmbr

**Click on "Insurance Programs"**

- Get instant quotes online.
- Compare top companies.
- Design coverage that fits your needs.
- No waiting for quotes by mail.
- No sales pressure.
- Apply right on your computer.
- Save time and money.

**NEW SERVICE**




MMA
MINNESOTA MEDICAL ASSOCIATION
MEDICINE'S VOICE IN MINNESOTA

PHYSICIAN APPROVED MMBR ASSOCIATION ENDORSED

MMBR
MINNESOTA MEDICAL BUSINESS RESOURCES
OWNED BY MMA & HMS

*Visit us at www.mnmed.org/mmbr or call us at 612-623-2860 or 800-298-6627*

mation is being used for purposes other than diagnosis and treatment. Again, this complex issue could be better addressed in the longer 2001 legislative session.

### *Patient Protection*

Another initiative promoted by Attorney General Hatch is a series of patient protections designed to ensure health plan accountability. The MMA has worked closely with Hatch to support this legislation, which includes health plan liability, a standardized definition of "medical necessity," limitations on prior authorization requirements, and a prohibition on the use of "one-way indemnification" or "hold-harmless" clauses by health plans. This bill received numerous hearings in the 1999 session and will be back this year.

### *Prompt Payment*

The MMA will pursue a requirement that third-party payers pay their bills on time. A recent MMA survey of clinics shows that nearly two-thirds experience delays of more than 30 days in the payment of clean claims (see article, page 25). The legislation would require all third-party payers to pay a clean claim within 30 days or be subject to a monthly interest penalty. Similar legislation directed at home health care providers was adopted last year.

### *Alternative Provider Legislation*

The MMA will continue to oppose legislation introduced during the 1999 session dealing with complementary and alternative health care providers. This legislation protects individuals who call themselves complementary or alternative providers from disciplinary action by the state or licensing boards, or legal action by a county attorney, unless the provided care results in "serious, direct harm." This would prohibit a county attorney from prosecuting an individual who is practicing medicine without a license, and potentially putting a patient at harm, if the practitioner calls him or herself a complementary or alternative provider. This standard would offer more protection to an unregulated practitioner than is offered to a physician or other health care provider licensed in Minnesota. The bill includes no minimum training requirements or quality standards for these individuals. The MMA is concerned that the legislation provides no public protection. Although consumers are using more complementary and alternative practices, alternative practitioners should not be given unprecedented protection to practice without government oversight.

MMA
MINNESOTA MEDICAL ASSOCIATION

At the Capitol this year, the MMA will work to eliminate the provider tax, reduce health care costs, and maintain data privacy, while tackling other initiatives that benefit patients and physicians.

### *Standards for Physical Exams*

The MMA has been working with the Minnesota Academy of Family Physicians to establish minimum standards for physical examinations that are provided to high school athletes. Currently, many high school athletes receive inadequate physicals. Because there is no accepted standard for what should be included in a high school sports physical, there is growing concern that many unqualified providers are doing these exams. This legislation would require the Minnesota State High School League to adopt a standard form for high school sports physicals and ensure that providers performing these examinations are trained to assess and treat the multitude of physiologic systems that must be examined in a comprehensive physical.

The MMA will again actively represent the interests of physicians at the Capitol. Our strength in advocating on behalf of physicians and their patients comes from the dedication of the physicians themselves. We rely on every physician member. Please become involved in the political and policy debates.

If you have questions about these issues, or any other legislative or political issue in the upcoming year, please contact the MMA's Center for Physician Advocacy at 888/662-6774. We need your input and your involvement to succeed at the Legislature. MM

*Dave Renner is director of state and federal legislation for the MMA.*

*HATCH cont. from page 9*

of government to be having those names." He cites as an example a Florida government employee who released a list of AIDS patients' names to the media during a "moral crusade." Preventing such disclosure in Minnesota would require a simple amendment, Hatch says. "I think there will be a line of legislators willing to author that one."

Hatch doesn't believe such a privacy law would hamper medical research. "In areas where research is involved, data can be exchanged as long as names aren't. I don't think they need to be."

> *"Modern leaders aren't the leaders they once were. They want to be popular. Leadership is about being respected, not being loved."*
>
> *—Minnesota Attorney General Mike Hatch*

Also troubling to Hatch is that confidential patient data appear to be finding their way into the hands of pharmaceutical companies, which are using the information to target consumers with direct-mail and telemarketing campaigns. As a result of the data privacy suit against U.S. Bancorp, Hatch's office has been contacted by people who have received personal solicitations for medications such as mental-health drugs or back-pain remedies, he says. "There are millions of ways your name can get out there. It's amazing. We're still looking at the issues."

Hatch feels strongly about the right to privacy. "It's part of personal empowerment ... how we define ourselves as individuals. We have a right to define who we are for others, what attributes we wish to share with others, and what we wish to hold back. We don't want government to know everything about us."

## *The Meaning of Leadership*

Hatch, 51, protects his own privacy when it comes to talking about himself and his roots. He grew up in Duluth, the third of four children. Asked what in his background prompted his interest in consumer issues, he declined to answer. He'd rather discuss issues.

"Modern leaders aren't the leaders they once were," he says. "Modern politicians are ass-kissers. They want to be popular. It's an unfortunate commentary on political life. Leadership is about being respected, not being loved." The U.S. president he most admires? Hatch points to the statue at the center of the table in his conference room: Abraham Lincoln. "He had to make the most difficult decisions ever made by any man, woman, or child. This is the only guy who kept it [the country] together." A man like Lincoln would have a tough time getting elected president in today's image-oriented culture, Hatch notes. "He was very homely. He did not dress well. But he made some great speeches."

Hatch's interest in politics and government was born during his stint as a merchant marine, he says. (Hatch shipped out on a freighter after dropping out of college. He later graduated from the University of Minnesota-Duluth and the University of Minnesota Law School.) He remembers "bouncing up and down the Great Lakes along the Rust Belt, and the Midwest *was* the Rust Belt then," he says. The Vietnam War was under way. The civil rights movement was in full swing. Riots were breaking out. "It was hard not to become interested in government and politics in that era," Hatch says.

## *Continuing an Activist Tradition*

Although Hatch, like his predecessor, Hubert ("Skip") Humphrey III, is a longtime DFLer, he wasted no time in dramatically reshaping the attorney general's office. In what the *Star Tribune* described as "perhaps the largest turnover in the office in more than 60 years," Hatch pared the attorney general's staff from 546 to 484 employees. The firings and resignations included several top attorneys from the office's health division.

Under Humphrey, Hatch told reporters last year, underworked and poorly supervised state lawyers often filled their time with unwarranted actions against ordinary citizens and small businesses. The reorganization, he says, was part of an effort to meet budget restraints, boost low attorney caseloads and pay scales, and tighten management.

The restructuring—and its results—has been one of his biggest accomplishments since taking office, Hatch says. "We've been able to organize the office the way we want." He describes the current staff as "bright" and "with-it," and the office as "invigorated."

His management style may differ from Humphrey's, but Hatch says he and his predecessor are similar in their activist approach to health care issues.

"Skip demonstrated a lot of active leadership on tobacco, first of all in taking the lawsuit [against the tobacco companies], and in sticking to it," Hatch says.

"We're both activists in this area. Health care is so huge. There are so many sides to the elephant you can touch. We've touched different sides." **MM**

*Kim Palmer is a Twin Cities freelance writer and editor.*

## ANNOUNCEMENTS



### Prevent Needlestick Injuries

The National Institute for Occupational Safety and Health (NIOSH) can provide employers, workers, and others with assistance in reducing needlestick injuries. A document containing information on the serious risks posed by occupational needlesticks and how they may be prevented is available on the NIOSH Web page at www.cdc.gov/niosh/2000-108.html.

### Immigrant and Cross-Cultural Health

Health Advocates, in collaboration with HealthEast, will offer an "Orientation to Immigrant and Cross-Cultural Health" series at the HealthEast Midway Health Services Building, 1700 University Avenue, St. Paul. The series begins on March 16 and meets every Thursday until May 18. Classes are from 6:30 to 9 p.m.

For more information, contact Barbara Babbit of Health Advocates at 612/920-8944.

# MMA Legislative Summit: How Bills *Really* Become Laws

John Van Etta, M.D., Minnesota Medical Association president, reminded physicians attending the MMA Legislative Summit on January 24 that they are the strength of the association.

"Our lobbyists can be our messengers at the Capitol, but you, as a constituent, are the one who has the influence over your legislator or member of Congress," he said.

MMA
MINNESOTA MEDICAL ASSOCIATION
**Legislative Summit 2000**

Guest speaker Michael Dunn, president of Michael E. Dunn, Inc., a public affairs consulting firm based in Washington, D.C., works extensively with the American Medical Association to help physicans become involved in the political process. "The people in this room represent a great deal of latent political power," said Dunn.

From a political insider's perspective, he discussed topics such as: how policy is really made; why some people get better representation than others; and how to effectively communicate with lawmakers.

"Knowing your lawmaker is not enough," said Dunn. "You have to demonstrate your support for that candidate's career."

Hosting a "meet and greet," doing volunteer work, or making a contribution to an election or reelection campaign will help build working relationships with lawmakers.

Federal campaign contributions of more than $200 must be public record—therefore, $250 is an amount that will get candidates' attention, said Dunn. State-level contribution regulations vary in election- and non-election years.

Political action committees (PACs) consist of people who recognize there is strength in numbers and want to support candidates who share their views on issues and legislation that affect them, said Dunn. Physicians have divergent views on many non-medical issues, but that should not affect their ability to work together. "Physicians should agree to disagree on issues that don't affect the future of medicine," he said.

Dave Renner, MMA director of state and federal legislation, gave a presentation on health care issues that might be addressed in the 2000 legislative session, including repeal of the provider tax, health plan accountability, prompt payment of physicians, standards for complementary and alternative health care providers, and minimum standards for physical examinations provided to high school athletes.

House Majority Leader Tim Pawlenty (R–Eagan) spoke to attendees following dinner. He asked them to develop ideas for fixing growing problems in the health care system. "The doctor-patient relationship is the heart of the system, and it needs to be the heart of the reform."

The MMA will continue to provide legislative and regulatory advocacy for physicians. "We take this role very seriously," said Van Etta. "And I believe we do it very well."

For information on MEDPAC and AMPAC, the political action committees of the MMA and AMA, please contact Wendy O'Donnell at 612/362-3745.

# MMA in the News

An MMA news release endorsing food irradiation generated related stories in 27 Minnesota newspapers in November and December. **Samuel Hall, M.D., chair of the MMA Environmental Health and Occupational Medicine Subcommittee**, was quoted: "There is no controversy in the scientific community about the safety and effectiveness of irradiation."

**Lee Beecher, M.D., MMA trustee**, was quoted in a January 21 Minneapolis-based *Star Tribune* story about a lawsuit that resulted in HealthPartners modifying its mental health policies to allow for treatment of children with behavioral problems. "Mental illnesses in children and adolescents have been undertreated in most managed-care systems," said Beecher. "We need to be asking questions about the restrictive policies. I am very concerned that they are driven by business considerations."

**Judith Shank, M.D., MMA immediate past president,** was quoted in a January 7 *St. Paul Ledger* story about the MMA co-sponsored summit to address rising health care costs. "Those of us who observe the health care situation closely have become very worried," said Shank.

**Paul Sanders, M.D., MMA CEO,** was quoted in a January 7 Minneapolis-based *Star Tribune* story about the MMA co-sponsored summit to address rising health care costs. "The antagonistic model doesn't work anymore," said Sanders. "The plans are facing crises, the physicians are taking salary cuts, and the hospitals are losing money. If the stakeholders don't talk to each other, the problem won't get solved."

**Paul Sanders, M.D., MMA CEO,** was quoted in a January 1 Minneapolis-based *Star Tribune* story about hospital overcrowding due to widespread illness. "We've investigated the problem and found it is a very real issue," said Sanders. "The bed shortage also makes it difficult for physicians, particularly those in the east metro, to schedule elective surgeries."

**Paul Sanders, M.D., MMA CEO,** was quoted in a December 10 Minneapolis-based *Citybusiness* story about Mark Banks, M.D., becoming the new CEO of Blue Cross and Blue Shield of Minnesota. "We applaud his appointment, not only because he is a physician, but also because he is a competent administrator," said Sanders.

## HHS Files to Dismiss Medicare Lawsuit

If Attorney General Mike Hatch's lawsuit against the federal government over inequitable Medicare reimbursement was a football game, we'd be watching the end of the first quarter. Minnesota has the ball and is not about to punt.

On January 18, the United States government and Donna Shalala, secretary of the Department of Health and Human Services filed a motion to dismiss the lawsuit, which was filed in U.S. District Court last November on behalf of the Minnesota Senior Federation Metropolitan Region, the state of Minnesota, and private citizen Mary Sarno.

"We were expecting this motion from the federal government—this issue is far from over," said Christina Rich, Minnesota Medical Association director of legal affairs.

The MMA is preparing an affidavit that supports the lawsuit, said Rich. "We will continue to be actively involved as this case moves forward."

# Meiches' Mission Is to Support Patients and Physicians

Robert K. Meiches, M.D., became the new Minnesota Medical Association Board of Directors chair at the January 8 meeting. He replaced Paul Matson, M.D., who is now an MMA alternate delegate to the American Medical Association House of Delegates. Matson was presented with a framed certificate in appreciation of his service while board chair. "Paul Matson, M.D. has done a fabulous job as chair of the Board of Trustees. All physicians in Minnesota should be grateful for his leadership—past and future."

Meiches has been an MMA member for 12 years, serving as a member of the Long Term Care Section and as president of the Minnesota Medical Director's Association. He served as an MMA trustee from the West Metro area for seven years and has been a member of the MMA Executive Committee for three years. Meiches has been actively involved with many issues, including scope of practice and matters related to Medicare and Medicaid. He has testified before the legislature on behalf of the MMA.

"This position is one of a number of leadership roles within the MMA," he said. "We, as physicians, have to ensure the health care profession continues to support the patient. We can accomplish this by strengthening the role of the physician to make certain we offer the best possible health care in our communities."

# Medicare Pre-Op Policy Suspension Doesn't Include Chest X-rays

A United HealthCare-Medicare policy that denies chest x-ray coverage under pre-operative codes V72.81–V72.84 is separate from the carrier's proposed policy to deny all pre-operative services associated with those codes.

"There's been some confusion about this," said Janet Silversmith, Minnesota Medical Association director of health economics and policy analysis. "Physicians need to realize these are two distinct policies. Meicare will deny coverage of chest x-rays billed with pre-op codes as not medically necessary," she said.

In September 1999, United HealthCare-Medicare, Minnesota's Part B Medicare announced it would deny coverage of all services associated with pre-operative examination codes V72.81–V72.84. The Health Care Financing Administration (HCFA) expressed concerns about several aspects of the policy and is currently reviewing it. United Healthcare-Medicare has since suspended the policy indefinitely and is waiting for national direction.

The Minnesota Carrier Advisory Committee (CAC), a group of physicians that reviews local policies, approved the revised chest x-ray policy, which was also announced in September.

The MMA will continue to inform physicians of policy changes that affect them.

# HIPAA Is Not a Large African Animal

When it comes to data privacy, the most secure information around may be the meaning of all the proposed rules and regulations that will govern it. And where is this giant HIPPA who is so concerned about electronic medical records?

The Health Insurance Portability and Accountability Act of 1996 (HIPPA) set the tone for the future of electronic data privacy. HIPPA gave Congress until August 1999 to enact privacy protections for electronic data. If Congress missed that deadline—which it did—the Department of Health and Human Services (HHS) was directed to step in with regulations.

In November 1999, HHS published its proposed standards for protecting electronically transmitted health information from improper access or alteration and against loss of records. The proposed regulations are under nationwide review by groups with an interest in the electronic transmission of health care data. The deadline for comments is February 17.

A. Stuart Hanson, M.D., and Pat Hanson, Minnesota Medical Association manager of quality and data, are taking part in the Minnesota Health Data Institute (MHDI) Data Privacy Committee, which will review and develop comments on the proposed rules.

"There is a lot of information in the proposed regulations, and we are looking at all of it carefully to see what its impact might be," said Pat Hanson.

It's important to realize that these rules are not in their final form, said Hanson. "When all the comments come in, I think we may see some big changes," she said.

The standards apply only to health care data that is transmitted in electronic form and printouts made from that information. Records in

*HIPPA continued on page 36*

## Medicare Medical Director Takes New Position at United

On January 21, United Health Care-Medicare Medical Director Thomas Knabel, M.D., announced his resignation. After serving as medical director for the Medicare carrier for about a year, he accepted a position as a national medical director in United's commercial division.

This announcement, along with other recent personnel changes at United HealthCare Medicare, has raised concerns that physicians' relationships with the carrier will be disrupted.

Knabel told the MMA that United HealthCare-Medicare intends to fill the position as soon as possible with either a permanent full-time medical director or a part-time interim medical director.

# Little-Known Drug Program Could Make Big Difference

Something has kept enrollment in the Department of Human Services Senior Drug Program down like a case of influenza type A. The program is one of the best deals around for low-income seniors—yet it has few takers among those eligible to join.

Many seniors who lack drug coverage continue to pay hundreds, or even thousands, of dollars a year for prescriptions when they could pay only $35 a month by joining the program. The Minnesota Board on Aging believes that only about 1,900 of approximately 50,000 of those eligible are enrolled.

A $19 million state appropriation in July eliminated one obstacle to enrollment—a $120 premium payment, paid up front, that was originally required to join the program. The 15-page application form has been reduced to four pages. Other ways to enroll more people, such as increasing the limit on the value of applicants' assets and raising the income limit from 120 percent to 175 percent of the poverty, will probably be addressed in the upcoming legislative session.

The program was implemented in 1999 to help seniors burdened with the high cost of prescription drugs, which are not covered by Medicare. Ten other states have initiated similar programs in order to compensate for inequitable Medicare reimbursement practices that punish states with efficient health care systems and force low-income older citizens to choose between buying prescription drugs or other necessities.

The Board on Aging has launched an outreach program that targets seniors in low-income housing. It is also working with pharmacies, church groups, doctors, and clinics to help inform seniors of the program.

To be eligible for the Senior Drug Program, applicants must be: (1) age 65 or older, (2) Minnesota residents for at least six months, and (3) single, with monthly income of $844 or less and assets (excluding car and house) worth less than $4,000, or (4) married, with monthly income of less than $1,126 and assets (excluding car and house) worth less than $6,000. Those who qualify receive a card which they can present at their pharmacy to have all their prescriptions refilled for a $35 monthly fee.

Physicians and clinics interested in providing patients with information about the Senior Drug Program can obtain materials from Amy Dellwo at the Department of Human Services, 651/296-1368.

## *HIPPA from 35*

paper form are not affected.

The standards in their current proposed state would regulate contracts with third parties, methods of obtaining patient medical record authorization, and the methods by which patients are notified about medical record privacy issues.

When the HHS rules and regulations become effective in their final form, those affected will have 24 months to comply. The MMA will keep physicians informed of any new developments pertaining to the standards.

## MMA Will Look at Prescription Drugs

Physicians know firsthand that some patients, particularly seniors, face difficulty obtaining medications they need.

Recognizing that drugs are an indispensable part of modern health care, the Minnesota Medical Association will soon begin studying factors that affect access to prescription drugs, including cost, rebates, and the role of pharmaceutical benefit management companies.

One of the biggest gaps in prescription drug coverage is among the 39 million elderly or disabled people on Medicare. The problem is exacerbated in states such as Minnesota by inequitable Medicare reimbursement practices that create economic hardship for many enrollees.

Although Medicare coverage of prescription drugs will be debated on Capitol Hill and in election campaigns this year, the MMA intends to look at other factors that keep drugs out of the hands of those who need them.

The MMA House of Delegates identified access to prescription drugs and their rising costs as a serious problem that should be examined. Pat Hanson, MMA manager of quality and data, believes studying issues surrounding prescription drugs is appropriately timed and a good undertaking for the MMA. "We hope to determine what role physicians can play in making sure patients do not go without needed drugs."

# NEWS DIGEST

*People and places making medical news*



## People & Places

**Julie Morath,** chief operating officer for **Children's Hospitals and Clinics,** was elected to the board of directors of the **National Patient Safety Foundation** at the American Medical Association. The NPSF was founded in response to growing concern about medical errors. Morath is the author of the new book, "The Quality Advantage: A Strategic Guide for Health Care Leaders."

**Diane T. Murray** joined **Minnesota Specialty Physicians Inc.** (MSP) in St. Louis Park as director of contracting and operations. Murray was most recently director of operations at **East Metropolitan Health Organization Inc.** in St. Paul. MSP is owned by member medical and surgical practices representing 20 specialties and 500 specialty physicians. Its physicians provide care throughout the metro area and in locations serving greater Minnesota and western Wisconsin.

**Kaye Lillehei,** widow of heart surgery pioneer **C. Walton Lillehei, M.D.,** has created a trust for the **University of Minnesota** that is expected to generate $13 million for the Medical School and $3 million for the School of nursing during the next 20 years. The trust will fund the creation of the **Lillehei Heart Institute,** which will unite the university's adult and children's cardiology and cardiovascular-surgery programs, and the Katherine R. and C. Walton Lillehei Chair in Nursing Leadership. The gift is the largest ever for the Medical School and School of Nursing.

The **University of Minnesota's School of Nursing** received a $60,000, two-year grant from the **Robert Wood Johnson Foundation** to strengthen Minnesota nurse practitioner programs. The university, which administers the funds, is working with five other practitioner education programs and **HealthPartners** to improve curricula, find new teaching sites, and develop new strategies.

The **University of Minnesota Cancer Center** established a new toll-free phone line and Web site to provide information to the public and health care professionals. The phone line (888/226-2376) will be staffed by cancer experts from 8 a.m. to 4:30 p.m., Monday through Friday. The Web site (**www.cancer.umn.edu**) will provide information on cancer diagnosis, treatment, and living with cancer.

The advertising/public relations firms **Campbell Mithun Esty** (CME) and **Shandwick International** were chosen to develop Minnesota's $8 million antitobacco campaign. Health Department officials expressed confidence in the two agencies, even though they are owned by the **Interpublic Group** of Companies, which has ties to tobacco firms. The campaign will be aimed at reducing teen smoking (watch for a story in the March *Minnesota Medicine*).

**Blue Cross and Blue Shield of Minnesota** provided a $50,000 grant to support the Stop Teen Tobacco Organizing Project (STTOP) of the **American Lung Association** of Minnesota's northeast district office in Duluth. The grant is one of a number of tobacco-reduction projects funded by the **Blue Cross and Blue Shield of Minnesota Foundation** from the $21 million it received from Blue Cross' tobacco settlement. The grant supports STTOP's efforts to expand the number of clean indoor air spaces in eight northeastern Minnesota counties.

**Crookston,** a community of just over 8,000 people, became the first city in Minnesota to eliminate smoking from all its restaurants. As of January 1, smoking is permitted only in the city's bars and private clubs. The voluntary adoption of clean air policies at restaurants followed a campaign by a community health and wellness coalition, **Wellness Works,** to protect the health of restaurant employees, children, and the community at large. More than 80 percent of Polk County adults are nonsmokers.

The **Minnesota Department of Health** will launch a public health campaign aimed at preventing suicide. In a report to the Legislature, it said it would present a detailed plan in 2001 for developing suicide awareness and prevention strategies. The report noted that suicide is the second leading cause of death among 10- to 34-year-olds, and the eighth leading cause of death for all ages.

The **University of Minnesota** and the **American Red Cross** have formed a $1 million umbilical-cord blood bank at the university, the first bank of its type in the Midwest and one of about 12 such centers nationwide. Red Cross nurses will collect cord blood twice a week at **Fairview-University Medical Center's Riverside** campus. The blood will then be tested and stored at the **Molecular and Cellular Therapy Center** on the university's St. Paul campus. Cord blood transplants are used to treat a range of diseases in children, from sickle cell anemia to cancer.



## Socioeconomics

### HealthSystem, Allina Scrap Plans for Burnsville Surgery Center

**HealthSystem Minnesota** and **Allina Health System** have decided not to build a $15 million outpatient surgery center in Burnsville after all. Both companies cited financial concerns as the reason for the decision. **HealthSystem Minnesota** recently launched a $25 million cost-cutting program, including 138 layoffs and elimination of 213 unfilled jobs.

### Twin Cities Still Short of Health Care Workers

Health care firms have more job vacancies than any other industry, according to a survey of more than 2,000 Twin Cities businesses conducted by the **Minnesota Department of Economic Security**. Health care firms account for 10 percent of all job vacancies in the Twin Cities, the study showed. Nursing aide and licensed practical nurse are among the occupations with the most job openings. The need for workers is expected to continue as the population ages.

### Allina Retreats from St. Cloud Hospital Battle

**Allina Health System** gave up (for now) its fight to build a hospital in the St. Cloud area. Allina needed legislative approval to build what would have been the second hospital there. The proposed hospital was opposed by **CentraCare Health System**, which owns the existing St. Cloud hospital. Allina will, however, proceed with plans to build a clinic in St. Cloud.

### State Awards Grants to 25 Rural Hospitals

Twenty-five small, rural Minnesota hospitals received grants totaling $330,000 from the **Minnesota Department of Health's Critical Access Hospital Grant Program**. The program provides funds for hospitals seeking Critical Access Hospital designation, a special license that permits more flexible staffing and higher Medicare reimbursement. Congress established the program in 1997 to support rural America's smallest hospitals. **LakeWood Health Center** in Baudette and Mahnomen Health Center became Minnesota's first Critical Access hospitals in 1999.

### St. Paul Cos. to Buy MMI

The **St. Paul Cos.** announced plans to buy Illinois-based **MMI Companies** for $320 million in cash and debt. The purchase, which is subject to regulatory approval, would create the world's largest provider of insurance and risk-management services for the health care industry. MMI has 900 employees and specializes in consulting and risk management services for large hospital groups. The **St. Paul Cos.**, which has long been the largest medical malpractice insurer in the United States, has about 550 employees in its medical services unit.

### Commerce Commissioner Relaxes Health Insurance Regulations for Small Firms

**Minnesota Commerce Commissioner Steve Minn** has authorized insurance companies to issue scaled-back health insurance policies to businesses with fewer than 50 employees. The new policies can exclude coverage for children's health services, mental health and chemical dependency treatment, and prenatal care. Business groups have protested that Minnesota's previous health insurance mandates were too expensive for small businesses, while health care advocacy groups have argued that workers would lose benefits. **Jamie Peters, M.D.**, president of the **Minnesota Academy of Family Physicians**, told the *Star Tribune* that the new policies will be closely watched. "If it allowed more people to have health care that don't have a plan at all, then it could be worthwhile," he

said. But, he added, "We would not be supportive of a system that leaves people without prenatal care."

### State Urged to Approve State Hospitals $20 Million for Charity Care

A task force has recommended to Minnesota Health Commissioner Jan Malcolm that the Legislature appropriate $20 million for hospitals and clinics that provide a large share of charity care. The state-sponsored group argues that the financial welfare of some hospitals, particularly Hennepin County Medical Center in Minneapolis and Regions Hospital in St. Paul, is at risk because they provide as much as one-third of the state's hospital-based charity care. The Legislature appropriated $10 million last year for hospital charity care aid. Malcolm, however, said the administration will not support the recommendation this year.

### State to Audit HMOs' Administrative Costs

Attorney General Mike Hatch in January said he plans to audit health maintenance organizations to examine the industry's administrative costs. The announcement came in response to legislators' concerns about rising health care premiums. The first audit should be completed before summer.

### BHCAG Membership Increases by Nine

The Buyers Health Care Action Group (BHCAG) announced that nine companies, including HealthSystem Minnesota, have joined the health purchasing coalition, bringing its total membership to 50. HealthSystem, which includes Park Nicollet Clinic and Methodist Hospital, is the first health care provider organization to offer BHCAG's Choice Plus program to its employees.

## Rates, Trends & Data



### National Abortion Rate Hits 20-Year Low

According to the Centers for Disease Control and Prevention, the number of abortions for every 1,000 live births dropped from 314 in 1996 to 305 in 1997, the lowest rates since 1975. The CDC reported 52 percent of women receiving abortions were 24 or younger, and 55 percent of the procedures were done in the first two months of pregnancy. In Minnesota, the number of abortions rose to 14,224 in 1997 from 14,193 in 1996. The numbers have declined since 1980, when 19,028 abortions were performed in the state.

### States Get New Rules for HIV Reporting

The Centers for Disease Control and Prevention has issued new guidelines requiring states to collect information on HIV cases with patient names or codes attached. Under the new rules, testing sites would report HIV cases and names to state health departments, which would then send only case data to the CDC. States that don't comply with the guidelines risk losing federal funding for HIV surveillance. AIDS activists fear the new requirements will discourage people from being tested.

### Minneapolis Babies Not So Healthy

A new study on the health of babies in 50 of the nation's largest cities gave Minneapolis only average scores. Researchers examined the birth records of 750,000 babies born in 1997 for eight key health indicators, including whether the mother smoked, how many children she had, whether she had timely prenatal care, and her age, marital status, and education. The Kids Count project, "The Right Start Conditions of Babies and Their Families in America's Largest Cities," classified 56.3 percent of babies born in Minneapolis as healthy, vs. 68.1 percent of babies born statewide and 61.6 percent of babies born in the nation's 50 largest cities.

### Illegal Drug Use Among U.S. Teens Appears Stable

The University of Michigan's annual survey of 8th-, 10th-, and 12th-graders revealed that use of illicit drugs changed little or not at all in 1999. The study found one in four 12th-graders, one in five 10th-graders, and nearly one in eight 8th-graders reporting past-month use of an illicit drug. Compared with last year's figures, alcohol use among teens has also remained stable. However, researchers noted a rise in the use of steroids (past-month steroid use increased almost 50 percent among 10th-graders) and the stimulant "ecstasy."

Send your medical news to *Minnesota Medicine:* mm@mnmed.org or send us a fax: 612/378-3875.

# Research & Innovations



### Vaccine May Reduce Addictive Effects of Nicotine

Hennepin County Medical Center researchers **Paul Pentel, M.D.,** and **Dan Keyler** report that a vaccine may block the addictive effects of nicotine. In experiments with laboratory rats, the vaccine reduced the concentration of nicotine in the brain by two-thirds. The vaccine, known as **NicVax,** was developed by Pentel and his colleagues at the **Minneapolis Medical Research Foundation** and is now produced by **Nabi,** a pharmaceutical company in Florida. Pentel and Keyler hope to begin testing the vaccine in humans in 2002.

### Quality Improvement Efforts Aid Diagnosis and Treatment of Depressed Patients

According to research reported in the January 12 issue of *JAMA,* primary care clinics can do a better job of identifying and treating depressed patients by using quality improvement techniques such as education and teamwork. The study, which was conducted by the **Rand Corp.** of Santa Monica, California, involved 913 patients at 46 primary care clinics in five states, including three **Allina** clinics in the Twin Cities area. Patients in the quality improvement clinics were 30 percent to 40 percent more likely to be receiving counseling and medication in the first six months. After a year, 10 percent more patients in the quality improvement groups were less likely to be depressed, and 5 percent were still working.

### Research to Chew On

**Mayo Clinic** researcher **James Levine** and his colleagues calculated that chewing sugar-free gum burns up to 11 calories an hour. The study, reported in the December 30, 1999, *New England Journal of Medicine,* suggests that individuals who chew gum throughout the day could lose as much as 11 pounds in a year.


# AMA Internet Health Road Show

*—Using the Internet for Better Health Care—*

**March 9, 2000 • 8 a.m. to 4:30 p.m.**

RiverCentre • 175 West Kellogg Boulevard • St. Paul, Minnesota

This one-day course, conducted by the American Medical Association and the Intel Corporation, is taught by industry leaders in medicine and technology. It explores the areas where health care and technology overlap and what the future will bring. Through hands-on discovery sessions, participants will learn about why patients access the Web, what tools are available to physicians, and the latest Internet health care technology.

CME credit is available. For more information or to register, visit www.ama-assn.org/about/roadshow/reg_info.htm, or call Tricia Murdoch at 909/558-7252.

The registration fee is $125; registrations postmarked after February 16 are $175.

Through a Midwest Medical Insurance Company educational grant, the first MMIC-insured physician from a clinic to register will receive a $100 refund upon completion of the program.

***Co-sponsored by the Minnesota Medical Association and the Midwest Medical Insurance Company***

*Minnesota Medicine* is the official journal of the Minnesota Medical Association, and its purpose is to provide Minnesota physicians with timely information regarding all aspects of medicine so they can more capably serve their patients and more readily achieve their professional goals. Therefore, the editors are pleased to consider for publication clinical and health papers (clinical studies, reviews, case reports) and essays, letters, and opinion pieces related to medical practice in Minnesota.

## Manuscripts

Submit clinical articles, essays, letters, book reviews, and other manuscripts at any time to: Meredith McNab, Managing Editor, *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761. Manuscripts are reviewed by the editors and peer reviewed by the Advisory Committee, the Review Board, and other experts in particular specialties.

Please submit two copies and keep one for your files. You may submit a Macintosh or IBM-compatible ASCII (text) floppy disk with your manuscript. Disks and copies of unpublished manuscripts will be returned to the authors. Only submit unpublished articles that have not been submitted elsewhere.

A cover letter should identify the author with whom we correspond (include address and phone number). Double-space all text on one side of paper only, including references, legends, etc., and number pages consecutively.

Receipt of manuscripts is acknowledged within 10 days, and authors are usually notified whether their manuscript is accepted within one to three months, but longer delays are sometimes unavoidable.

## Title and Authors' Names

The first page of the manuscript should include: 1) a title—make it short, specific, and direct, 2) the full names of all authors, with their academic degrees, 3) authors' positions in hospitals or other institutions—include current position and the position held when the work reported in your manuscript was done, as well as academic appointments and other information pertinent to the paper's topic.

## Abstract

The second page of the manuscript should include an abstract no longer than 150 words that highlights for the reader the essence of the authors' work. It should focus on facts rather than descriptions and should emphasize the importance and uniqueness of the findings and briefly list the approach used for gathering data and the conclusions drawn.

## Author Responsibility

All authors should be involved in the drafting, revision, and intellectual content of the manuscript and be sufficiently familiar with the paper to defend its findings. Authors are responsible for all statements made in their work, *including changes made by copy editors*. Manuscripts are edited for clarity and grammar and to conform to *Minnesota Medicine* style, and authors receive an edited, word-processed copy of their paper for their review before it is sent to the printer. Once it is set in galleys, only *minor* changes can be made.

All authors sign a copyright form that conveys all copyright ownership to the Minnesota Medical Association. This form is mailed to the authors after a manuscript is submitted to *Minnesota Medicine*, and must be completed and returned before the article is published. If the manuscript is not accepted for publication, the form is returned to the authors.

## Style

Use *JAMA* style or consult the AMA's *Manual for Authors & Editors*. Use generic drug names, unless citing a brand name relevant to your findings; brand names in parentheses may follow generic names if desired. Do not use abbreviations in the title, and limit their use in the text. Avoid medical jargon.

## Tables

Tables must have a title and be on separate pages. If they occupy more than one page, type "*title* (cont.)." If the data in the tables have been previously published, appropriate reference should be given in the text, and permission should be obtained from the original publisher before submission to *Minnesota Medicine*.

## Illustrations

Submit two copies of illustrations, keeping one for your files. Figures should be professionally drawn or photographed, if possible. We prefer glossy, clear black-and-white photographs, but color is acceptable if the contrast is good. Do not send original artwork.

Each figure should have a label pasted on the back indicating the figure number, author names, and the top of the figure. Legends should be included in the text of the manuscript with numbers corresponding to the figures. Do not mount figures on cardboard, write on the back of the figures, or attach paper clips to them. If a patient in a photo is identifiable, a written release form from the subject must accompany the photo.

## References

All references must be cited in the text and should be arranged in the order in which they are cited in the text—*not* alphabetically. Journals should be abbreviated as in *Index Medicus*.

Examples:

1. Benson RC Jr. Laser photodynamic therapy for bladder cancer. Mayo Clinic Proc 1986;61:859-64.

2. Guttormson NL, Bubrick MP. Mortality from ischemic colitis. Dis Colon & Rectum, to be published.

3. Chaterjee SN. Use of GOR-TEX grafts as vascular access procedure for chronic hemodialysis. Abstract of a paper submitted to the European Society for Artificial Organs Eighth Annual Meeting, Copenhagen, August, 1981.

4. Thompson NW. Thyroid and parathyroid. In: Welch KJ, Randolph JG, Ravitch MM, et al., eds. Pediatric Surgery, 4th ed. Chicago: Year Book Medical, 1986:522-33.

## Financial Interest

List all affiliations with or financial interest in organizations that may have a direct interest in the subject matter of your manuscript. This information will be held in strict confidence until publication, and then will be printed with the article as is deemed appropriate in judging the validity of the article.

## Reprints

Authors may order article reprints for a fee. Reprint request forms are sent to authors at the time of publication.

# Rural Minnesota Family Physicians

## *Practice Characteristics, Gender, Income, and Job Satisfaction*

Robert E. Berg and Barbara A. Elliott, Ph.D.

ABSTRACT

**This study investigated rural physicians' job satisfaction, income, and working conditions through a survey of a random sample of rural family physicians in Minnesota. Of the 300 surveys sent, 210 (70%) were returned and usable.**

**Male physicians reported more years of experience, work hours, and call hours per week than female physicians ($p<0.0005$). On a scale of 1 to 5, average overall job satisfaction among the physicians was 4.04, with men averaging 4.0 and women, 4.3. Overall job satisfaction was positively correlated with the presence of a hospital in town ($p<0.05$) and negatively correlated with the number of work hours, including hours on call, per week ($p<0.05$). Overall job satisfaction was lowest for those in practice 20–34 years. Average reported annual income was $127,213 (men, $131,400; women, $97,800; $p<0.0001$). In a comporison of physicians working the same number of hours including call, men earned more than women.**

**Rural Minnesota family physicians reported high job satisfaction. Income was positively correlated with size of practice, years of experience, and number of hours worked. In addition, men earned more than women, and physicians whose poy was based on production earned more than physicians on straight salary.**

Historically, rural areas have had difficulty attracting and retaining physicians. According to a national survey in 1988 of physicians in rural counties, 26% of 510 respondents planned to leave within five years.[1] A 1991 report found that nearly 70% of rural Minnesota hospitals were actively recruiting physicians.[2] A 1995 survey indicated that nearly 20% of physicians practicing in rural Minnesota were older than 65, and that 40% planned to retire within two years of the survey.[3]

It is commonly believed that rural practice offers fewer rewards and more burdens than urban practice, and that rural physicians are less satisfied than their urban counterparts.[4] Other research has reported that rural practice is associated with lower pay and longer hours.[5]

Another common perception is that being a doctor is less satisfying now than in the past.[6] A 1993 study surveyed students who had done well on the Medical College Admission Test (MCAT)—qualifying for admission to medical school—but who had not applied.[7] Sixty percent (60%) of those students felt physicians were inadequately paid, and 63% felt physicians have to give up too much time and freedom. Anticipated job satisfaction and time for personal life were key criteria reported by those choosing other fields.

Job satisfaction has been defined as the "mechanism through which features of people's jobs affect their attrition."[8] Mainous found that physicians' subjective satisfaction with their workload was a significant factor in their decision to leave a practice.[9,10] Many studies have attempted to correlate satisfaction with objective work measures. For example, income has been positively associated with satisfaction in some studies,[1,11] as have professional freedom,[1,4] rural lifestyle,[1,4] increasing age,[12] federal employment,[11] and being in an authority position.[12] An increase in the number of hours worked has been found to decrease overall satisfaction,[1,11,12] as has serving more uninsured patients.[1] Distance from major referral centers also has shown a negative correlation with overall satisfaction.[1] Physicians working in managed care have shown satisfaction comparable to that of physicians outside managed care, although managed care generalists report lower satisfaction and managed care specialists report higher satisfaction than their counterparts working in other settings.[13]

The purpose of this study was to generate a current profile of family physicians in rural Minnesota in terms of their workweek, pay, job demographics, and occupational satisfaction.

## *Methods*

Physicians were eligible for this study if they were in family practice, had five or more years of experience, and worked in Minnesota communities of 25,000 people or less. According to the database from the American Academy of Family Physicians, 317 Minnesota physicians met these criteria in the summer of 1998. Surveys were mailed to 300 randomly selected Minnesota family physicians. A second mailing was sent to non-

responders three weeks after the initial mailing.

Survey questions covered practice and community characteristics, weekly hours worked (including hours in clinic, hospital, and nursing home settings; administrative duties; and on call), income, and overall job satisfaction. A global measure of satisfaction was used. Dependent variables of primary interest were income and job satisfaction. Chi square, Pearson R, ANOVA, and regression were used to analyze the data.

## Results

Of the 300 physicians surveyed, 213 (71%) returned the survey. Three were excluded from data analysis because they did not meet eligibility criteria: One practiced in a town with a population of more than 25,000, and two reported less than five years of experience. This left 210 surveys (70%) for data analysis.

Most of the respondents were male physicians (87% male [n=180] vs. 13% female [n=27]). Three respondents did not specify gender, and their responses were excluded from analysis. Mean number of years in practice was 17 (SD=9); mean years at current practice site was 14 (SD=9). Males averaged 17 total years in practice and 15 years at their current practice site, while females averaged 11 total years in practice and 8 years at their current practice.

Average town population was reported to be 9,167. Larger practices were found in towns with larger populations ($p<0.0001$). Ninety percent (90%) of respondents reported the presence of a hospital in their practice town. For physicians in a town without a hospital, the average distance to a hospital was 14 miles.

Most respondents reported working with midlevel practitioners (nurse practitioners and/or physician assistants) in their practice. Fifty-four percent (54%) of respondents worked with at least one physician assistant, and 69% reported working with at least one nurse practitioner. Also, nearly two-thirds of respondents (62%) reported that obstetrics was part of their practice. Three-quarters (75%) of the female physicians reported that their practice included OB, while only 60% of the males indicated OB was part of their practice ($p=0.17$).

Table 1

*Practice characteristics by gender*

| Factor | Total | Male | Female |
|---|---|---|---|
| Respondents | N = 210 | N = 180 (87%) | N = 27 (13%) |
| Income* | $127,213 | $131,400 | $97,800 |
| Obstetrics | N = 128 (62%) | N = 108 (60%) | N = 20 (74%) |
| Satisfaction | 4.04 | 4.0 | 4 .30 |
| With OB | 4.04 | 3.0 | 4 .33 |
| Without OB | 4.05 | 4.04 | 4 .14 |
| Weekly hours† | 50 | 52 | 39 |
| Weekly hours including call† | 65 | 67 | 48 |
| Years' experience‡ | 16.6 | 17.4 | 11.3 |

*$p<0.0001$
†$p<0.0005$
‡$p<0.001$

### Hours Worked

The survey asked clinicians to tabulate and report the number of hours they spent on clinic, hospital, nursing home, and administrative duties. This total is called "hours worked." In addition, clinicians were asked to report the number of hours they spent on call but not actually working in these settings; these hours are referred to as "call hours."

The mean reported number of hours worked per week, excluding call, was 50 (range 12–81; SD=14); including call, the mean was 65 hours (range 12–118; SD=21). The average number of hours worked by female physicians was 39 (range 12–73; SD=16); 48 including call (range 12–76; SD=18). In contrast, male physicians reported an average of 52 hours per week (range 14–81; SD=13), or 67 including call (range 14–113; SD=20). As shown in Table 1, these differences were statistically significant ($p<0.0005$).

The average number of hours physicians were on call per week was 15 (range 0–40; SD=13). There was a significant difference between the number of call hours reported per week by female physicians and the number reported by males (females' mean 9, SD=10; and males' mean 15, SD=13; $p<0.05$).

The amount of call also varied with the size of the practice. Physicians in smaller practices reported taking more call hours per week and more call days per month ($p<0.05$). In physician groups with 0–4 other doctors, respondents averaged 21 hours of call per week and 6 days of call per month. This decreased to 15 hours of call per week and 3 days of call per month for physicians in practices of 13 or more doctors. Interestingly, physicians in larger practices tended to work more hours per week than physicians in smaller practices. Those working with 0–4 other physicians worked an average of 48 hours per week, while those in groups with 13 or more other doctors worked an average of 51 hours per week.

Male physicians with 15–19 years' experience worked the most hours per week, including call, (see Table 2). Overall, female physicians with equal experience worked fewer hours and reported less call. After 20 years in practice, female physicians reported weekly work hours comparable to males', although few women

Table 2

*Years of experience compared with weekly hours worked including call*

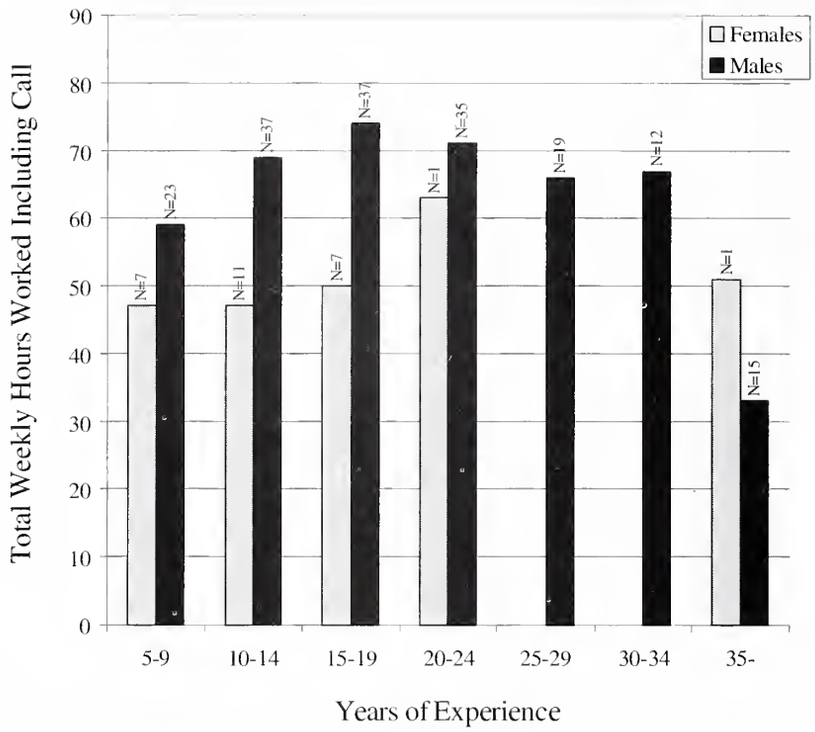
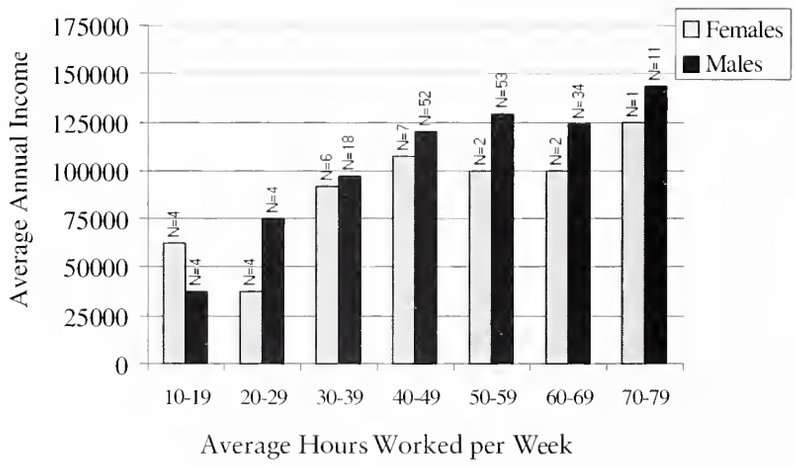



Table 3

*Gender, weekly hours, and income*




in our sample reported having been in practice this long (one in the group working 20–24 years and one in the group working more than 35 years).

## Income

The respondents reported an average annual income of $127,213 (SD= $38,238). There was a statistically significant difference between the incomes of men and women: Men reported earning an average of $131,400, while women reported an average of $97,800 ($p<0.0001$; see tables 1 and 3).

Income increased with the number of hours worked each week ($p<0.05$); the correlation was stronger when call was included ($p<0.0005$). For physicians who reported working the same number of hours per week, men earned more than women except at the level of 10–19 hours per week. However, because of the small number of men and women who reported working the same number of hours, the difference in their incomes was not statistically significant (see Table 3).

The male physicians in this study have been in practice longer than the female physicians ($p<0.001$). Men also reported higher income than women with the same years of experience at all but the 35+ years experience level. That these differences were not statistically significant may be related to the fact that there was only one woman in the sample with this seniority, and she worked one-third more hours than her male counterparts (see Table 2).

Forty-nine percent (49%) of respondents reported that their pay was based on production, 15% reported earning a set salary, and 35% reported some combination of the two. There were statistically significant differences in income based on how the physicians were paid, with salaried physicians earning the least ($p<0.005$). The physicians who reported being paid set salaries also reported working fewer hours, taking less call ($p<0.005$), and working in smaller practices than those whose pay was based on production.

Regression analysis was used to determine how well the factors that were independently correlated with income explained the amount earned. This analysis indicated that 33% of respondents' income could be explained by four of the factors, as listed in Table 4. The number of hours spent at work each week (excluding call) was the strongest predictor; years in practice, gender, and production-based pay were also important predictors.

## Satisfaction

Satisfaction was measured with one question: "How satisfied are you with your current employment situation?" Possible responses ranged from 1 (very unsatisfied) to 5 (very satisfied). Average reported satisfaction was 4.04 (range 1–5, SD =0.864). The average satisfaction level was

4.3 for female physicians and 4.0 for males; however, this difference was not statistically significant (p=0.14).

Overall job satisfaction decreased as the number of hours worked, including call, increased (p<0.05). There also was a statistically significant curvilinear relationship between years practiced and satisfaction (see Table 5). Physicians with 5–19 years or more than 35 years in practice reported significantly higher job satisfaction than physicians with 20–34 years' experience (p<0.001).

Physicians who practiced in a town with a hospital reported significantly higher job satisfaction than physicians in a town without a hospital (4.4 and 4.0 respectively, p<0.05). For physicians in a town with no hospital, the distance to the nearest hospital was not related to job satisfaction.

When respondents were grouped by gender and inclusion of obstetrics in their practice, men who did OB reported the lowest job satisfaction (mean=4.00; n=108), followed by men who did not do OB (mean= 4.03; n=71) and women who did not do OB (mean=4.14; n=7). Women whose practice included OB reported the highest overall job satisfaction (mean = 4.33; n=20). However, these differences were not statistically significant (p=0.16).

Regression analysis showed that the sum of weekly hours worked (including call), years in practice, and presence of a hospital in town were related to job satisfaction. However, only 2% of physician satisfaction with work setting was explained by the regression, and the presence of a hospital in the community where the physician practiced was the only predictor of physician satisfaction (see Table 6).

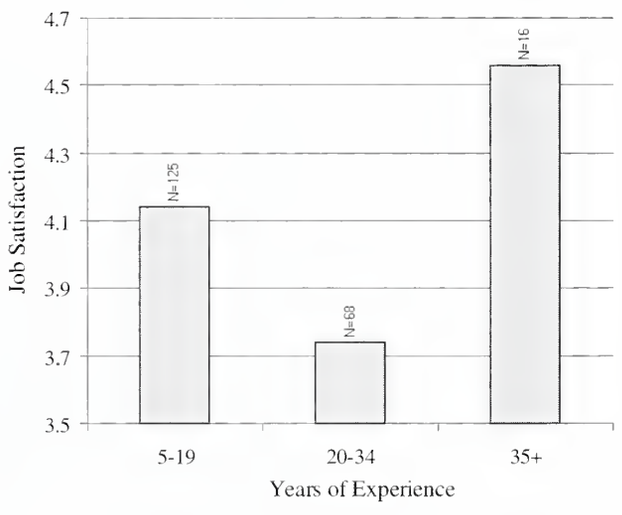
Table 4

*Factors statistically associated with income*

| Factor | Pearson R | Regression -$R^2$ |
|---|---|---|
| Total hours (excluding call) | R = .24; p<0.0005 | $R^2$ = .24 |
| Years in practice | R = -.21; p<0.005 | $R^2$ = .05 |
| Gender (male =1) | R = .29; p<0.0001 | $R^2$ = .03 |
| Pay arrangement (production) | R = .20; p<0.005 | $R^2$ = .02 |
| Practice size | R = .20; p<0.005 | |
| Call hours per week | R = .49; p<0.0001 | |
| Years in current practice | R = -.20; p<0.005 | |
| Obstetrics | R = .26; p<0.0001 | |

Table 5

*Years of experience and job satisfaction*




## Discussion

The 70% survey response rate increases the likelihood that the results of this study are representative of the rural family physician population targeted. The demographics reported are very similar to those in previously published reports, especially for income.[8]

Factors statistically predictive of increasing income in this study included male gender, increasing weekly hours worked, increasing years of practice experience, and pay based on production. These variables accounted for 33% of the income variance, suggesting that 67% of income is related to factors not measured by this study.

Male and female respondents had statistically significant differences in income. Male physicians reported working more hours, both regular and call, and they had more years of experience. However, these variables did not fully explain the discrepancy between incomes of male and female physicians. Men earn more than women with equal experience and more than women working the same number of weekly hours, regardless of call.

That the demographics of practicing family physicians has changed is evident from this study. For example, although few women have been practicing for 10 years or longer, more women have been entering the field. In recent years, practice arrangements also have changed to accommodate women who desire more flexibility in their work hours and call responsibilities.

The trend toward female physicians working fewer hours each week and taking less call is especially apparent among those reporting 5–19 years' experience. Childbearing and child-rearing responsibilities could partly explain this finding, as women in this group are likely to be in their peak child-rearing years. Those with more than 20 years of experience

Table 6

*Factors statistically associated with satisfaction*

| Factor | Pearson R | Regression -$R^2$ |
|---|---|---|
| Hospital in town | t= 2.0; p<0.05 | $R^2$ = .02 |
| Years in practice (curvilinear) | R = -.03; p=.62 | (Second order) |
| Total hours including call | R = -.14; p<0.05 | |

(n=2) reported working office and call hours comparable to their male colleagues'.

Future studies will need to examine additional factors relevant to pay. Such factors include the number of patient visits per day, number of procedures performed, patient-base demographics (percent insured, percent Medicare/Medicaid, etc.), acuteness of patients' needs, physician charging system, and physician gender differences in charging patients.

Income was not associated with job satisfaction in the current study. However, some physician surveys have found low income to be a factor in rural physician dissatisfaction.[1,11] Others have found pay not linked to job satisfaction for physicians[14] or workers in other fields.[15]

Regression analysis showed that of the factors measured for this study, the only variable related to satisfaction was the presence of a hospital in the practice community, which increased satisfaction. Two additional factors were correlated with satisfaction, but they did not enter into the regression.

Reports of higher satisfaction from physicians with less than 19 and more than 35 years of experience may be interpreted several ways. Newer doctors may be better adjusted to the current practice climate, having experienced more consistency during their careers. Alternatively, the most experienced physicians may be looking forward to retirement and thus may not be bothered by changes in the profession, or the dissatisfied doctors may have retired. Doctors with 20–35 years in practice have experienced changes in the field during their careers. They may remember the "good old days" and anticipate a long time to practice before they retire.

It is important to note that the factors identified in this study accounted for only 2% of the variance in overall job satisfaction. Variables accounting for the other 98% of physicians' job satisfaction were not identified or measured by this study. Future studies will need to further illuminate which factors contribute to rural physician job satisfaction.

## *Study Limitations*

Certain limitations have become evident in the completion of this project, one pertaining to the satisfaction variable, the others to the factors related to both income and satisfaction. To keep the survey brief, satisfaction was assessed using a global measure, which may not have been sensitive enough to reveal the desired information. A follow-up study on physician satisfaction should be designed to differentiate areas of satisfaction, e.g., "satisfaction with community," "satisfaction with recreational opportunities," etc.

With respect to the relationship between hours worked and the outcome variables, our survey asked physicians to estimate and report their own weekly hour totals based on their most recent full week worked. It has been observed that physicians frequently over- and underestimate the hours they work. An actual time study analysis may be needed to assess this observation. The effect of this factor on the overall validity of this study is unknown.

Finally, our study did not include physicians with less than five years of experience. As a result, a significant number of female family physicians were not included. For purposes of comparison, future research should include physicians at all levels of experience.

## *Conclusion*

Overall, rural Minnesota family physicians expressed high job satisfaction related to working in a community that has a hospital. Job satisfaction and income were unrelated. Although the incomes of rural Minnesota physicians are close to the national average, male physicians earn more than their female colleagues.

Men and women differed significantly in their work characteristics. Men tended to work more hours, take more call, and have more years of experience. However, the differences in practice characteristics that were measured in this study do not fully explain the gender differences in income. Further studies are needed to explain this discrepancy. MM

*Robert Berg is a third-year medical student in the School of Medicine at the University of Minnesota. Barbara Elliott is a professor in the Department of Family Medicine at the UMD School of Medicine.*

### *Acknowledgments*

*Portions of these data were presented at the Minnesota Academy of Family Physicians' Research Forum, April 17, 1999, in partial fulfillment of funding obligations.*

*This research was funded by the Health Resources and Services Administration, Bureau of Health Professions, James Boulger, principal investigator. The authors also acknowledge Kate Beattie's assistance with the statistical analysis.*

### REFERENCES

1. Movassaghi H, Kindig D. Medical practice and satisfaction of physicians in sparsely populated rural counties of the United States: results of a 1998 survey. J Rural Health 1989;5(2):125-37.

2. Minnesota Department of Health, Health Systems Development Division, Health Economics Program. Providing medical care in rural Minnesota: recommendations for meeting health personnel needs.

Minneapolis: Minnesota Department of Health, 1991;39-62.
3. Lee J, Lenzmeier T, Boulger J, Buck S, Bergeron D, Hill T. Retirement of senior physicians in rural Minnesota: factors influencing physicians' plans to retire. Minn Med 1995;78:21-5.
4. Pathman DE, Williams ES, Konrad TR. Rural physician satisfaction: its sources and relationship to retention. J Rural Health 1996;12(5):366-77.
5. McGinn PR. Rural practice: long hours, low rates. Am Med News. July 29,1988; 11-3.
6. Suchman AL. Physician job satisfaction: reversing the decline. Cleve Clin J Med 1996;63(3):137-8.
7. Barondess JA, Glaser RJ. Attitudes toward the medical career: findings from the Alpha Omega Alpha survey of college and university undergraduates. Acad Med 1993;68(5):323-8.
8. Pathman DE. When 1+2 does not equal 3 for hard-working rural physicians. Arch Fam Med 1994;3(9):757-9.
9. Mainous AG, Ramsbottom-Lucier M, Rich EC. The role of clinical workload and satisfaction with workload in rural primary care physician retention. Arch Fam Med. 1994;3(9):787-92.
10. Smith DA. Reply to commentary on rural physician retention and workload. Arch Fam Med 1995;4(3):205.
11. Salive ME. Preventive medicine physician satisfaction and its relation to practice characteristics. Am J Prev Med 1997;13(4)303-8.
12. Lloyd S, Streiner D, Shannon S. Burnout, depression, life and job satisfaction among Canadian emergency physicians. J Emerg Med 1994;12:559-65.
13. Baker LC, Cantor JC. Physician satisfaction under managed care. Health Aff (Millwood) 1993;12(suppl):258-70.
14. Lichtenstein R. Measuring the job satisfaction of physicians in organized settings. Med Care 1984;22:56-68.
15. Coburn D. Work and general psychological and physical well-being. Int J Health Serv 1978;8:415-35.

There's a life
to be saved right now.

Please give blood.

**Call 1-800-GIVE-LIFE**

**American Red Cross**

**CentraCare Clinic** *is a progressive and growing 108-physician multi-specialty clinic with 9 Central Minnesota sites. Our clinics offer a comprehensive income and benefits package and are conveniently located between the Twin Cities and prime Minnesota lakes area. Central Minnesota offers an outstanding lifestyle with quality schools and abundant recreational activities. CentraCare Clinic is currently recruiting for the following locations:*

**CENTRACARE Clinic**
River Campus

*Join an exceptional 65-physician specialty clinic which currently has openings in the following specialties:*

- Allergy
- Internal Medicine *St. Cloud/Little Falls*
- Dermatology
- Neurology
- Neurosurgery
- Gastroenterology
- Pediatric Intensivist
- Infectious Disease
- Rheumatology
- Non-Interventional Cardiology

**CENTRACARE Clinic**
Heartland

*Join an experienced 6-physician clinic with an opening in:*

- Family Practice Physician who practices Obstetrics

**CENTRACARE Clinic**
Women & Children's Center

*Join an exceptional 21-physician clinic specializing in pediatrics and obstetrics/gynecology which currently has openings in the following specialties:*

- Allergy
- Pediatrics
- Obstetrics/Gynecology
- Obstetrics specializing in Endocrinology & Reproductive Health

*For further information, please call or write:*

*Karla Donlin*
*Kristine Cunningham*
*Physician Recruiters*

*1406 Sixth Avenue North*
*St. Cloud, MN 56303*
***1-800-835-6652***

*Not a health care profession shortage area.*

**CENTRACARE Clinic**

# Minnesota Bound

## *Stability of Practice Location among UMD Family Physicians in Minnesota*

*Despite alarming national trends, UMD family doctors who set up rural practices tend to stay put.*

James G. Boulger, Ph.D.

ABSTRACT

**Previous studies indicate that physicians often move from one practice setting to another, particularly early in their career. However, data on practice relocation for a group of University of Minnesota, Duluth School of Medicine graduates show a different trend. Minnesota family physicians from the UMD School of Medicine have been remarkably stable in their practices over the past 20 years. More than 80% of these physicians have continued to practice in the same community that they selected after their training. In addition, physicians in this group who are practicing in smaller communities have not relocated to urban practices. These findings suggest that the UMD School of Medicine's emphasis on family medicine and rural practice may have influenced the practice retention rate for these physicians.**

The need to recruit and retain physicians for practices in rural and small communities is a longstanding and well-known problem. A significant number of private recruiting firms as well as programs at the state and federal levels (e.g., state educational loan repayment programs, National Health Service Corps) are aimed at alleviating physician shortages in these areas. Physician recruitment is not the only challenge, however; retaining these health care providers after their initial move to a small community also is a problem.

The reasons that a physician leaves a practice are varied and personal. Nonetheless, studies have identified factors that appear to influence the decision to leave rural and small-community practices. Analysis of retention data from the National Health Service Corps and community health centers, for example, indicates that many physicians placed in underserved communities stay just long enough to repay their loan obligations.[1-4] Combined with results from other studies of retention,[5,6] these analyses indicate that the retention rate for physicians in rural areas may be as low as 12% over an eight-year span,[2] with an average across studies of approximately 30% to 40%. Most of these studies, however, used samples of physicians who were contractually obligated to practice for a specified period in those communities.

The results for groups who voluntarily select their practice sites are less clear, though survey information cited in numerous studies reflects considerable physician dissatisfaction with working in rural/small community practices and suggests the possibility that large numbers of physicians are leaving that type of practice for "greener pastures" in urban practices.[7-9]

### *The UMD School of Medicine*

The University of Minnesota, Duluth School of Medicine is the only remaining two-year, separately accredited medical school in the United States. It is a significant component of the health sciences program of the University of Minnesota and is administratively independent of the University of Minnesota Medical School in Minneapolis. Upon successfully completing their first two years of medical school in Duluth, students are accepted by the UM Medical School on a noncompetitive basis to complete their M.D. degree.

The mission of the UMD medical education program is threefold: (1) to increase the number of well-trained physicians who will enter family practice, (2) to increase the number of physicians who will enter practice in rural and nonurban areas of the state, and (3) to provide excellent academic training in basic and clinical sciences. Since its inception in 1972, the Duluth program has emphasized family practice and the need for physicians in rural and small communities. Its admissions procedures and preferences have been structured accordingly.[10]

Based on the results of this study, the UMD School of Medicine has accomplished its mission. Over the 22 years since its first class graduated in 1976, 53.4% of the 1,015 gradu-

Table

*Practice stability of former UMD School of Medicine students in practice 1 to 20 years*

| | Relocation Site | | |
|---|---|---|---|
| **Initial Practice Site** | **Small Community** | **Large Community** | **Did Not Relocate** |
| Small Community (pop. < 30,000) | 12 (0.04%) | 12 (0.04%) | 159 (86.9%) |
| Large Community (pop. ≥ 30,000) | 10 (0.04%) | 8 (0.03%) | 71 (81.6%) |

*Note: Total N = 270 physicians; only 42 (15.6%) relocated. Numbers in parentheses are percentages based on N = 270.

ates have entered family medicine. An additional 15.8% have chosen another primary care specialty (internal medicine, 12.2%; pediatrics, 3.62%), 8.3% have entered surgery, and 22.5% have selected other specialties. In contrast, the national rate of entry into family practice over this period was about 13%.

Since their postgraduate training, 44% of all former UMD students have established practices in communities of 20,000 persons or fewer. More than 60% practice in nonurban, nonsuburban communities of fewer than 50,000.[11] The high recruitment rate of former UMD students to rural and small communities is clear. However, do these physicians show a similarly high rate of retention?

## Method

Alumni records for all students who matriculated at the University of Minnesota, Duluth School of Medicine between 1972 and 1992 and who have entered practice were reviewed. From this group, all graduates in family medicine who were practicing in Minnesota were selected for analysis. The records were categorized by practice site changes (e.g., no change, moved from smaller community to larger community). "Smaller practice community" was defined as a community with a population of 30,000 or fewer that was not contiguous to an urban/suburban area.

This resulted in a sample of 270 family physicians who began their medical training in Duluth and were in practice in Minnesota (range: 1 to 20 years). Of this group, 181 (67%) were practicing in nonsuburban communities with a population of fewer than 30,000; the remaining 89 (33%) were practicing in urban or suburban locations (Minneapolis, St. Paul, Duluth, Rochester, St. Cloud, or Mankato, or their suburbs).

Of these 270 practitioners, only 42 (15.6%) had moved from one community to another during their career. Of these 42 physicians, 12 moved from one small community to another (e.g., from New Ulm to Northfield); 10 moved from a large community to a smaller one. Twelve moved from a small town to a larger community, and eight moved from one large community to another large location. The table summarizes the results for this group. Eighty-seven percent (87.3%) of the physicians who initially chose to practice in the smaller communities have not moved or have relocated to another small community. In fact, there was no net change in the number of physicians practicing in smaller communities; two physicians who began in large communities moved to smaller ones and two physicians moved from smaller to larger communities.

To assess whether the data for physicians who entered practice more recently differ from the total group data, all graduates who had been out of residency less than three years were eliminated from the sample described above, resulting in an adjusted sample size of 225. Of the physicians in practice from three to 20 years, 81.3% were still in their original practice location. Analysis of community movement of physicians in the first three years of practice showed no physicians moving from one location to another during this period.

These data clearly show that the Duluth program graduates in family medicine have a much higher rate of practice stability than has been reported for physicians in other published studies. More than 80% of these family practice physicians have continued to practice in the community they selected upon completing their training. Physicians practicing in smaller communities have not relocated to urban areas. The Duluth program's emphasis on selecting medical students from small communities, coupled with its focus on family medicine and rural practice, may explain the positive retention figures for this group. MM

*James Boulger is an associate professor in behavioral sciences and family medicine at the University of Minnesota, Duluth School of Medicine.*

REFERENCES

1. Cullen TJ, Hart LG, Whitcomb ME, Rosenblatt RA. The National Health Service Corps: rural physician service and retention. J Am Board Fam Pract 1997;10:272-9.
2. Pathman DE, Konrad TR, Ricketts TC. The comparative retention of National Health Service Corps and other rural physicians. Results of a 9-year follow-up study [see comments]. JAMA 1992;268: 1552-8.
3. Pathman DE, Konrad TR, Ricketts TC. Medical education and the retention of rural physicians. Health Serv Res 1994; 29:39-58.
4. Singer JD, Davidson SM, Graham S, Davidson HS. Physician retention in community and migrant health centers: who stays and for how long? Med Care 1998;36:1198-213.
5. Horner RD, Samsa GP, Ricketts TC. Preliminary evidence on retention rates of primary care physicians in rural and urban areas. Med Care 1993;31:640-8.
6. Connor RA, Hillson SD, Kralewski JE. Association between rural hospitals' residencies and recruitment and retention

of physicians. Acad Med 1994;69:483-8.
7. Forti EM, Martin KE, Jones RL, Herman JM. Factors influencing retention of rural Pennsylvania family physicians. J Am Board Fam Pract 1995;8:469-74.
8. Crouse BJ. Recruitment and retention of family physicians. Minn Med 1995; 78:29-32.
9. Lyons L, Redetzke S, Boulger J. Recruitment and retention of rural female family physicians. American Academy of Family Physicians Scientific Meeting. Chicago, IL;1997.
10. Boulger J. Family medicine education and rural health: a response to present and future needs. J Rural Health 1991;7:105-15.
11. Boulger J. Prediction of family medicine career choice: a major study of outcomes. 24th Annual STFM Predoctoral Education Conference. New Orleans, LA;1998.

**Physician Employment Opportunities Available at**
**Winona Clinic, Ltd.**

**Family Practice**
**Internal Medicine**
**Orthopedic Surgery**
**Pediatrics**

Our staff of 30+ medical providers is looking forward to welcoming you as you begin your practice at this thriving, independent, physician-owned multi-specialty clinic, located in a family-oriented community situated along the Mississippi River in the beautiful bluff country of southeastern MN.

For additional information, contact:
Administrator
Winona Clinic, Ltd.
420 East Sarnia Street
Winona, MN 55987
507-457-7722
fax 507-457-7672

IMAGINE
United Way

EXPERT PRACTICE.COM
The Practice Performance People

**Your personal, online practice performance consultant.**

ExpertPractice.com — we build the tools and deliver the resources that help make the business of running a medical practice affordable and efficient.

**Among our many products are:**

- SnAPPnet™ — allows you to pre-populate any of the hundreds of credentialing applications in our Forms Library with a single push of a button.
- CredentialsAgent™ — delivers an online, physician-centric credentialing verification service right at your fingertips.
- ManageYourPractice™ — enables you to track, trend, compare and improve your practice performance with customized, online reports and recommendations.
- Receivables Payment Manager™ — features electronic insurance eligibility verification service that also processes credit cards on a point-of-service basis.

**Take a look and see what we have to offer...**

http://www.ExpertPractice.com

or call us at: (800) 646-5615

Expert Practice, Inc. | 4025 Camino del Rio South Suite 100 San Diego, CA 92108 | (800) 646-5615

# Whiplash, Chronic Neck Pain, and Zygapophyseal Joint Disorders

## *A Selective Review*

David B. Ketroser, M.D.

ABSTRACT

**Recent research on whiplash injury has challenged the long-held view of what causes chronic neck pain in car accident victims. Although it was previously thought to result from residual scarring of muscles and ligaments, such pain is now understood to be caused by zygapaphyseal-joint damage, which produces no objective findings on radiologic testing and often none on physical examination. Chronic pain from a whiplash injury can be reliably diagnosed and effectively treated in most patients by z-joint testing and radiofrequency blocks.**

The last decade produced breakthrough research on the pathophysiology, diagnosis, and treatment of whiplash injuries, especially in the last five years. Unfortunately, little of that research has been incorporated into the routine care of nonsurgical patients because it has been published almost exclusively in spine and surgery journals. This article attempts to make this information more widely available.

The predominant medical concept of chronic neck pain from car accidents has been that the forceful extension and flexion of the victim's head during the accident caused stretching and tearing of muscles and ligaments. The healing of these injuries was believed to produce residual scarring that was "irritating," "less flexible," and the source of the pain. Although this theory often received support from treating doctors, there was no scientific evidence that chronic neck pain was routinely caused by muscle scarring. No one found muscle or ligament scarring that corresponded to the presence of pain. No biopsy, autopsy, or other testing documented that the hypothetical scarring even existed.

In recent years, the weakness of this argument has become apparent to insurers and the public. Patients with chronic neck pain but no evidence of a cervical fracture or disc herniation are dismissed as whiners or gold-diggers. Yet objective evidence of a fracture or herniation is presumed to give credibility to their subsequent reports of pain. This is unfortunate because a fracture or a herniation may be painless, and a whiplash injury without objective findings may be entirely credible. Later in this article, I will demonstrate how a doctor can state, with more than 90% certainty, that a patient without objective findings is having pain (and from what).

Before discussing how whiplash injuries occur, I will point out two logical reasons that the "muscle stretch" explanation for chronic neck pain was untenable.

First, the most powerful movement of the head and neck in whiplash accidents is backward. Although this may stretch the anterior neck muscles or ligaments, it relaxes the corresponding posterior structures. Whiplash patients commonly have anterior neck pain for up to a week after a car accident because of muscle stretching, but this problem is never chronic. In contrast, chronic *posterior* neck pain is a frequent problem. It is unlikely that the more severely stressed anterior muscles and ligaments would always recover while their posterior counterparts would not.

Second, the muscles and ligaments of the neck are structurally identical to those of the arms and legs, yet we do not see chronic arm or leg strains. Inflammation may be long-lasting, but pain from muscle stretching and tearing is not. The duration of these injuries is normally measured in days or weeks, rarely in months, and never in years.[1]

Yet we often see patients with chronic neck pain that lasts for years. Chronic muscle strains are a medical

fiction that should be relegated to the historical scrap heap with phrenology and Laetrile.

## *The Mechanism of Injury in Whiplash*

For years, researchers have sought the ideal method for reproducing whiplash accidents in a controlled environment in which they could measure the relevant variables. They have tried mannequins, animals, human cadavers, and live human volunteers, the last an unacceptable option if there is any risk of injury or permanent damage.

One of the newest methods of measuring cervical spine movements during an accident was recently described in *Spine*.[2] Briefly, healthy subjects were placed on a chair mounted on a ramp. The chair was then moved backward and crashed into a damper at 4 km/hr (2.5 miles/hr). Cervical vertebral movements were recorded after impact using cineradiography at a rate of 90 frames per second. Virtually all relevant information was obtained in the first quarter-second after impact. This illustrates why whiplash was misunderstood until the recent development of technologically advanced measuring devices.

The cineradiography revealed that, on impact, the thoracic spine was pushed forward by the seat back, accompanied by the adjacent C7 vertebra. The C6 vertebra then rotated backward (extension) independent of the vertebrae above and below. This occurred without the backward translation of the C6 vertebra that accompanies backward rotation during normal cervical extension. The extension without translation forced the inferior articular processes of C6 into the superior articular processes of C7. These processes make up the zygapophyseal (or facet) joint at C6-7. In addition, the C6 extension stretched the anterior disc anulus between C6 and C7. Once the C6 vertebra impacted C7 at the zygapophyseal joint (or z-joint), the same movement began at C5. This process created an S-shaped curvature of the spine that progressed, snakelike, up to C3. Contrary to prior belief, the head moves backward after, not before, the neck.

## *Discrediting the Whiplash Cynics*

It has been suggested that low-speed rear-impact accidents cannot cause neck injuries because the forces are comparable to "acceleration perturbations of daily living," an argument that was almost plausible when it was made in an article in *Spine* in 1994.[3] Today, it is easily dismissed.

The article compares whiplash to the forces arising when a person casually looks left, is startled, suddenly looks left, suddenly stands up, lets the head drop back passively, sits down normally, sneezes, coughs, is unexpectedly bumped on the left shoulder, is expectedly slapped on the left upper back, is sitting in an office chair that is kicked hard from behind, hops off a 20 cm step, or plops passively backward into a low-backed office chair. The movement most often used as an analogy to whiplash accidents was the act of plopping into an office chair. But we now know why the comparison was inappropriate.

When someone falls back into a chair, the head, entire neck, and torso move backward together before impact. On impact, the torso stops and the head and neck continue to move backward until they are stopped by muscle and ligament stretching. As normally occurs with cervical extension, each cervical vertebra moves in an orbit around the vertebra below it as the head moves back. This movement will not exceed normal physiologic muscle restraint and cause a muscle stretch injury because the forces are insufficient. There is no relevant comparison between this and the motion that occurs during whiplash.

In whiplash, as we have seen, the vertebrae rotate backward consecutively from C6 up and are stopped when the articular processes collide and the anterior anulus is stretched. The collision occurs because there is no backward translation of each vertebra as it rotates backward. When a person falls into a chair, however, the force is distributed evenly to the entire cervical spine, muscles and ligaments. The injury-producing motions of whiplash simply do not occur in activities of daily living such as plopping into an office chair, even if the absolute forces are comparable. Small amounts of force focused on small structures can cause damage that would not be caused by the same amount of force applied to larger structures.

## *Clinical Significance*

Researchers have enthusiastically embraced the new research because it explains the autopsy findings of patients involved in severe whiplash accidents, who usually have injuries to the z-joints and anular tears.[4] The results also explain why whiplash patients report chronic head, neck, and upper-back pain but often have no significant findings on examination, x-ray, CT, or MRI. Z-joint injuries, short of fracture, produce no findings on these tests. Disc injuries are usually indistinguishable from asymptomatic degenerative changes.

The outer one-third of the disc anulus is innervated by the sinuvertebral nerve and is fully capable of producing pain when injured.[1] Injury to the disc anulus may be visible as an anular tear on MRI scan; however, most physicians pay little attention to anular tears because they are often asymptomatic. Likewise, the z-joint is richly innervated by the medial branch of the dorsal ramus of the nerve roots from above and below the joint.[1,6]

As noted above, injury to the z-joint, other than fracture, cannot be detected by current imaging methods; thus, whiplash causes real pathology for which these evaluations are worthless at best, and, when negative, misleading. It is inappropriate for physicians to conclude that because they cannot find an injury, no injury could exist. Fortunately, there are reliable tests for z-joint disorders.

Currently, the best diagnosis of disc-based pain is made by discography, a test that is painful and, on rare occasions, harmful. It is not usually performed unless surgical treatment is considered probable. Treatment of disc-based pain is generally limited to

conservative pain relief modalities or fusion surgery, and will not be discussed here.

## *Z-Joint Testing*

When a patient presents to a physician reporting chronic neck pain after a whiplash injury, that report carries the credibility of the patient. In most cases, there are no significant findings on examination or radiological testing. Although there are effective treatments for z-joint disorders, the physician must first verify the presence of z-joint pain and identify which z-joint(s) are involved, a process that requires an appreciation of medicine, litigation, and probability.

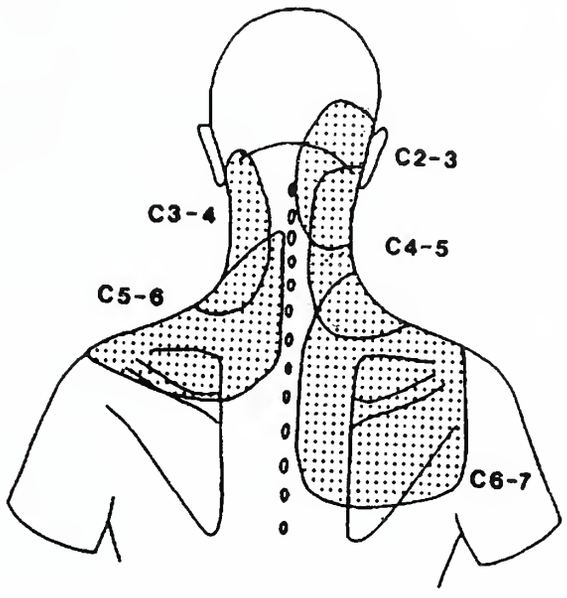
Using fluoroscopy to verify placement, one can anesthetize the z-joints individually.[7] In doing so, researchers have learned that z-joint pain patterns are somewhat predictable, though there is significant overlap between adjacent joint patterns[8] (see the figure). In a prospective, double-blind study, researchers studying patients reporting chronic neck pain after automobile accidents despite negative radiologic and clinical testing found a 60% prevalence of z-joint injuries using z-joint blocks.[9] In related studies using discography, most of the rest of the pain was found to arise from the discs.[1]

Using the location of the pain to choose the levels to inject, physicians can administer z-joint nerve blocks to identify the symptomatic joints. If the patient reports relief when a particular joint is anesthetized, we have presumptive evidence that the pain is coming from that joint. It is still possible, however, that the patient is not having pain or that the reported relief was a placebo response. Studies have shown that single z-joint blocks have a 27% false-positive rate.[10] Treatment based on single-block testing would, therefore, be inappropriate in nearly three out of 10 cases.

The expert literature recommends referring patients for repeat blocks using a different anesthetic agent.[7,11,12] Because of their significantly different durations of anesthesia, lidocaine is often used for one test and marcaine for the other. The patient is not told the order of agent use. The likelihood that the patient will guess the longer duration correctly without actually perceiving the difference is 50%.

To further enhance test reliability, a patient can be randomly referred for confirmatory medial branch blocks of both, one, or neither of the two branches innervating the presumptively symptomatic joint. The patient reports the results of that portion of the test after 30 minutes and then undergoes one or two additional blocks to completely anesthetize the joint. The patient's chances of guessing the correct answers for the degree and duration of relief from each block is 16.67% or 8.33%, depending on the pattern of blocks used. Correct answers yield a corresponding diagnostic certainty of 83.33% or 91.67%, and this is independent of physician bias and patient credibility.

Figure




Cervical z-joint pain referral patterns. From Dwyer et al.[8]

Whiplash-injured patients commonly have pain from more than one z-joint, and the use of the additional blocks needed to identify these joints decreases the likelihood that guessing can explain correct responses. Testing two symptomatic joints with this approach can produce a certainty level of 99.31%, although achieving this degree of certainty is probably unnecessary. Clearly, after z-joint testing, a physician can be highly confident that the patient has pain and that the "pain generator" has been identified.

## *Chronic Z-Joint Pain Treatment*

We have seen how whiplash accidents cause chronic pain, and how we can identify the source of some or all of the pain for most patients. The final, and ultimate, question is what can be done to treat those patients. The answer: It depends.

It depends on whether simple methods like time, over-the-counter medications, thermal modalities, and exercise provide what the patient considers sufficient relief. It depends on whether the patient is afraid of needles or prefers alternative medicine. It depends on whether the patient is willing to undergo a treatment that is part cure and part palliative. Finally, it depends on whether the source of most of the pain is the z-joint or the disc, and whether the patient considers surgery an option.

For patients reporting significant chronic headaches, neck, and/or upper-back pain from z-joint injuries, the long-term treatment options beyond self-care and medications are fusion surgery and percutaneous radiofrequency z-joint blocks. When the options are presented, these patients rarely accept surgery. Radiofrequency z-joint blocks have been found to provide pain relief for the majority of patients who have been properly evaluated using initial and confirmatory blocks.[13]

The radiofrequency blocks are performed by inserting a small probe beside the z-joint nerve and inducing

a roughly 2mm by 5mm burn that interrupts the nerve.[13] Initial research indicated that this provides relief for an average of nine months, after which the average patient has a return of 50% of the pretreatment pain.[13] A more recent study indicated that relief from cervical z-joint rhizotomy lasts on average 15 months.[14] At that point or later, the patient can choose to have a repeat radiofrequency block without further testing. Comparable duration of relief is the norm.

## *Summary*

Chronic neck pain after a whiplash injury (1) does not originate in muscle, (2) can be identified with a high degree of certainty (and credibility), and (3) can be effectively treated. Successful treatment requires a thorough evaluation before z-joint testing begins, and z-joint testing and radiofrequency blocks should be done by a physician with both training and experience in these procedures. Finally, the existence of chronic neck pain can be verified for the employer, the Independent Medical Examination doctor, or a jury, and the patient can have the dignity of a diagnosis.[15] **MM**

*David Ketroser is a neurologist at Physicians Spine Care in Hopkins, Minnesota. He specializes in the evaluation and treatment of acute and chronic neck and back problems.*

REFERENCES

1. Bogduk N, Aprill C. On the nature of neck pain, discography and cervical zygapophyseal joint blocks. Pain 1993; 54:213-17.
2. Kaneoka K, Ono K, Inami S, Hayashi K. Motion analysis of cervical vertebrae during whiplash loading. Spine 1999;24:763-70.
3. Allen ME, Weir-Jones I, Motiuk DR, et al. Acceleration perturbations of daily living. Spine 1994;19:1285-90.
4. Barnsley L, Lord SM, Bogduk N. The pathophysiology of whiplash. SPINE: State of the Art Reviews 1998;12:209-42.
5. Teasell RW, Shapiro AP. The clinical picture of whiplash injuries. SPINE: State of the Art Reviews 1998;12:257-70.
6. Lord SM, Barnsley L, Bogduk N. Cervical zygapophyseal joint pain in whiplash injuries. SPINE: State of the Art Reviews 1998;12:301-22.
7. Bogduk N. International Spinal Injection Society guidelines for the performance of spinal injection procedures. Part 1: zygapophysial joint blocks. Clin J Pain 1997;13:285-302.
8. Dwyer A, Aprill C, Bogduk N. Cervical zygapophyseal joint pain patterns I: a study in normal volunteers. Spine 1990;15:453-57.
9. Lord SM, Barnsley L, Wallis BJ, Bogduk N. Chronic cervical zygapophysial joint pain after whiplash: a placebo-controlled prevalence study. Spine 1996;21:1737-45.
10. Barnsley L, Lord SM, Wallis B, Bogduk N. False-positive rates of cervical zygapophyseal joint blocks. Clin J Pain 1993;9:124-30.
11. Dreyer SJ, Boden SD. Nonoperative treatment of neck and arm pain. Spine 1998;23:2746-54.
12. Lord SM, Barnsley L, Bogduk N. The utility of comparative local anesthetic blocks versus placebo-controlled blocks for the diagnosis of cervical zygapophyseal joint pain. Clin J Pain 1995;11:208-13.
13. Lord SM, Barnsley L, Wallis BJ, McDonald GJ, Bogduk N. Percutaneous radio-frequency neurotomy for chronic cervical zygapophysial-joint pain. N Engl J Med 1996;335:1721-26.
14. McDonald GJ, Lord SM, Bogduk N. Long-term follow-up of patients treated with cervical radiofrequency neurotomy for chronic neck pain. Neurosurgery 1999; 45:61-8.
15. Bogduk N. Presidential address, ISIS Second Annual Meeting, Minneapolis, October, 1994.

Clear blue skies, fresh air, wide-open spaces and clean lakes await you. MeritCare Medical Group is seeking talented, energetic physicians to join thriving, diverse practices.

MeritCare Health System is the premiere Health System between Minneapolis and Seattle. MeritCare Medical Group is a 350-physician multi-specialty group with a strong primary care base and MeritCare Hospital is a 354-bed tertiary/trauma hospital. Fargo-Moorhead is a tri-college community of 160,000 with excellent public and parochial schools and a park department that provides activities for all age groups year round.

We are seeking BC/BE physicians in the following specialties:

**Anesthesiology**
**Invasive, non-interventional Cardiology**
**Dermatology**
**General Surgery**
**Hematology/Oncology**
**Internal Medicine** (Bemidji, MN)
**Kidney Transplant Surgery**
**Neonatology**
**Neurosurgery**
**Otolaryngology**
**Obstetrics/Gynecology** (Fargo & Detroit Lakes, MN)
**Pediatrics**
**Adult Psychiatry**
**Child/Adolescent Psychiatry**
**Interventional Radiology**
**Reproductive Endocrinology**

Contact Kathleen Toft, Physician Recruiter, 737 Broadway, Fargo, ND 58123 or call 1-800-437-4010 or fax vitae to 701-234-2316. My e-mail address is kathetoft@meritcare.com or check our web site at www.meritcare.com



**MeritCare Medical Group**
EOE/AA Employer
(not a J-1 waiver opportunity)

# Practicing in the Age of EMTALA

*What physicians should know to comply with the "Patient Anti-Dumping Statute."*

Barbara E. Tretheway, J.D., and Hilary D. Marden

If federal investigators have their way, emergency department and on-call physicians may soon begin to feel the heat of increased federal enforcement of the Emergency Medical Treatment and Active Labor Act (EMTALA).[1] Since its enactment in 1986, EMTALA cases against physicians have resulted in only 15 federal settlements. However, 13 of those have come within the last four years.[2] At least three additional physicians have been charged with EMTALA violations and are now litigating those charges.[2]

Because it is the physician that ultimately decides who gets what care, when, and in what setting, emergency department and on-call physicians need to be keenly aware of their EMTALA obligations. This article answers the questions that physicians most often ask about EMTALA and provides practical suggestions for ensuring EMTALA compliance.

## Background

In the early 1980s, national attention was focused on hospitals' practices of denying medical treatment, providing substandard care, or prematurely transferring medically unstable patients because those patients were unable to pay for care. In response, Congress passed EMTALA, commonly known as the "Patient Anti-Dumping Statute."

In general, EMTALA requires hospitals that participate in Medicare to provide an appropriate medical screening examination (MSE) for patients who come to an emergency department seeking emergency care or who are in active labor.[3] If a hospital determines that an emergency medical condition exists, it must provide whatever treatment is necessary to stabilize the condition.[4] The hospital cannot transfer an unstable patient to another facility unless the patient requests the transfer or the medical benefits of the transfer outweigh the corresponding medical risks.[5]

The potential penalties for EMTALA violations can be severe. A hospital may be fined up to $50,000 for each violation.[6] Physicians also may be fined up to $50,000 and excluded from the Medicare and Medicaid programs.[7] Finally, an individual or a medical facility may seek damages and equitable relief against a hospital that violates EMTALA by bringing a private cause of action.[8]

Initially, EMTALA was rarely enforced, and when it was, the corresponding fines were not substantial.[9] Recently, however, the federal agencies charged with enforcing EMTALA have significantly stepped up their enforcement activities.[10] At the same time, court decisions and administrative guidelines[11] have substantially expanded the scope of a hospital's obligations under EMTALA.

## Common Areas of Concern

### When does a patient come to the emergency department?

The "comes to the emergency department" requirement has been interpreted broadly such that, in some circumstances, a patient is deemed to have "come to the emergency department" even when the patient never physically arrived there—for example, when the patient arrives at a nonemergency patient care unit or is placed in an ambulance operated by that hospital.[12] Regulators are attempting to further broaden this definition by including a patient's arrival at a nonpatient care area of a hospital, such as parking lots, sidewalks, and driveways.[13] In fact, regulators go so far as to interpret "comes to the emergency department" to include a patient who enters a separate facility, such as off-site hospital-owned clinics, urgent care centers, and specialty care facilities, if the facility and hospital are operated under the same Medicare provider number.[13]

#### Practice tips

1. If you are practicing in a hospital-owned facility, clarify the hospital's interpretation of whether your physical area falls within the EMTALA obligations.
2. In the absence of a policy, assume that there is an obligation to screen all patients seeking emergency care who arrive at a hospital-owned facility.
3. Demand training and guidance if a policy is not forthcoming from the hospital.

### What is an appropriate medical screening exam?

Once a patient comes to the emergency department, the hospital must provide an appropriate MSE. An MSE must be consistent with the hospital's capabilities and must occur at the hospital. If the patient comes to a contiguous or off-campus facility

seeking emergency medical care, the MSE must be performed at the patient's location.[13]

An MSE is appropriate if it is *consistently applied* to all patients who are perceived as having a similar condition, without regard to whether the MSE results in a correct diagnosis or otherwise meets the standard of care.[14] Moreover, a hospital or clinic is not required to provide an MSE beyond its capabilities.[15] In determining "capabilities," regulators assert that any service that a hospital offers to the public is within the hospital's capabilities, even if those services are only offered through on-call coverage or on an irregular basis.[16] Thus, a woman in labor who presents at a hospital providing OB services must be treated with the resources available, whether or not the hospital normally provides unassigned emergency OB services.[16] This can be a serious issue for rural facilities.

Once notified of the need for their specialized services, on-call physicians are obligated to appear within a reasonable period of time or risk civil penalties or exclusion.[17] If the attending physician determines that the benefits of a transfer outweigh the risk, that physician may transfer a patient if an on-call physician does not appear.[17] In these circumstances, the attending physician should not have any EMTALA liability.[17]

A hospital cannot delay an MSE for the purpose of collecting the patient's insurance information or obtaining prior authorization from a managed care health plan, even if the failure to obtain that information could result in the health plan's denying payment for the service.[18] Additionally, a hospital is discouraged from requesting information regarding a patient's ability to pay prior to the MSE, even if the request does not delay the examination.[19]

### Practice tips

4. Make sure the hospital has clear policies relating to its duty to provide MSEs for all patients who come to an emergency department, and be familiar with those policies.

5. Maintain a current list of all on-call specialists who practice anywhere in the facility. Where an attending physician does not have the capability to respond to a particular emergency, generally the facility must call in an appropriate on-call physician rather than transfer the patient to another facility.

6. If a physician is able to see a patient before the patient has completed the insurance collection process, the collection process should be interrupted and not resumed until the MSE has been completed.

7. Thoroughly document in the patient's medical record the reasons for any delays the patient experienced in waiting to receive emergency care.[20]

8. Have staff keep a waiting patient informed. A patient who understands the reasons for delays will be less frustrated and, therefore, less prone to complain.[20]

## What does 'stabilization' mean?

An "emergency medical condition" is defined as a medical condition that, if not immediately treated, could reasonably be expected to seriously jeopardize or cause serious dysfunction to the patient's (or her unborn child's) health or bodily functions.[21] Once an emergency medical condition is detected, a hospital must stabilize the patient. EMTALA's definition of "stabilize" differs from the clinical definition.[22] EMTALA uses the term to describe a status in which "material deterioration of the condition" is not likely to result from a transfer or discharge.[23]

There are three exceptions to the rule that prohibits a hospital from transferring or discharging an unstable patient with an emergency medical condition.

- There is no duty to stabilize a patient if the patient or the person acting on the patient's behalf, after being informed of the potential risks and benefits, either refuses the hospital's offer of further medical examination or requests to be transferred.[24]
- If the attending physician determines that the medical benefits of a transfer outweigh the medical risks associated with the transfer, the hospital may transfer the patient.[25]
- If a patient requires screening or stabilization in another facility owned by the same hospital, the hospital may transfer the patient as long as the facilities are contiguous or on the same campus, they operate under the same Medicare provider number, the transferring hospital would have moved a similarly situated patient to that facility, there is a bona fide medical reason to move the patient, and qualified medical personnel accompany the patient in the transfer.[26]

Until recently, courts disagreed about whether a hospital violates EMTALA by inappropriately transferring an unstable patient when there is no evidence that the transfer was motivated by improper reasons, such as the patient's indigency, race, or gender.[27] In *Roberts v. Galen of Virginia*,[28] the U.S. Supreme Court resolved this issue. In *Roberts*, an uninsured patient's condition worsened after a hospital allegedly transferred her in violation of EMTALA. The hospital argued that the patient did not have a viable EMTALA claim, because the plaintiff had failed to prove that the hospital acted with improper motive, as the patient's medical team had no knowledge of her inability to pay. The Supreme Court held that EMTALA contains no express or implied improper motive requirement. Therefore, patients are protected by EMTALA regardless of a hospital's motive for a transfer or discharge.

### Practice tips

9. Any time an unstable patient with an emergency medical condition declines further treatment or requests a transfer, obtain a signed informed consent from that patient or the person acting on the patient's behalf. This form should acknowledge that the patient has an emergency medical condition, and it should summarize the potential benefits and risks associated with the refusal of further treatment or the transfer.

10. If a transfer is deemed appropriate because its benefits outweigh its risks, sign a certificate documenting that determination. If a physician was not physically present in the emergency department at the time of the transfer, a qualified medical person must sign the certificate

after making that determination in consultation with a physician.[29] Both the qualified medical personnel and the consulting physician should document this on the patient's chart.

### What rules apply when receiving an emergency patient?

Hospitals receiving emergency patient transfers have two principal obligations under EMTALA. First, a hospital with a specialized capability or facility, such as a burn unit or a neonatal intensive care unit, must accept a transfer if the patient requires those services, provided the hospital has the capacity to treat the patient.[30] "Capacity" means the hospital's ability to accommodate the patient's needs.[31] Regulators assert that a hospital has the capacity to treat a patient in a specialized unit, even when that unit is full or understaffed, if the hospital generally accommodates patients by moving them to other units, calling in additional staff, or borrowing equipment.[31] Second, if a hospital believes that it received a patient who was transferred in violation of EMTALA, the hospital must report the perceived violation to HCFA or the appropriate state agency.[32]

Common transfer violations include transferring an unstable patient without proper transportation or equipment, or without the receiving hospital's first accepting the transfer; and transferring an unstable patient with a medical condition to a different hospital because an on-call physician refused to go to the transferring hospital.[33]

### Practice tips

11. Clarify the hospital's policy as it relates to physicians' authority to make decisions about accepting other hospitals' transfer requests.

12. Where there is a policy identifying certain staff members as responsible for making such decisions, transfer requests should be forwarded to those decision-makers.

13. If physicians are authorized to make transfer request decisions, maintain a log documenting the requests, their disposition, and, where applicable, the reasons for denial.[34]

14. If a transfer is received that appears to violate EMTALA, the receiving physician should inform the appropriate hospital administrator. Because a hospital only has "a reasonable amount of time" to investigate potential violations before reporting them to the appropriate agency, it is imperative that the administrator be made aware of the believed violation immediately.

## *Conclusion*

As hospitals' and physicians' obligations under EMTALA expand, administrative agencies are stepping up their enforcement activities. In the midst of this growing potential for liability, physicians and hospitals cannot afford to be without comprehensive policies and procedures designed to ensure compliance with EMTALA. **MM**

*Barbara Tretheway is vice chair of the Health, Human Services and Nonprofit Organizations Practice Group of Gray Plant Mooty, a Minneapolis law firm. Hilary Marden is in her final year at William Mitchell College of Law and will be joining Gray Plant Mooty upon her graduation.*

### References and notes

1. 42 U.S.C. § 1395dd.
2. Taylor M. Blaming the docs. Mod Healthc 1999;29(32):36-8.
3. 42 U.S.C. § 1395dd(a).
4. Id. at § 1395dd(b)(1).
5. Id. at § 1395dd(c)(1)(A).
6. Id. at § 1395dd(d)(1)(A).
7. Id. at § 1395dd(d)(1)(B).
8. Id. at § 1395dd(d)(2).
9. From 1986 to 1996, the first 10 years that EMTALA was in effect, there were only 66 settlements and judgments relating to EMTALA violations, with the civil penalties totaling approximately $1.45 million. Attorneys Advise Hospitals to Avoid Lawsuits By Improving Customer Service, Forms, Health Care Fraud Rep. (BNA), at 451 (June 2, 1999). According to the Public Health Citizen's Research Group, during these first 10 years, only 8 percent of EMTALA violators were subject to a financial penalty.
10. According to the OIG's semi-annual reports, from fiscal 1997 through the first half of fiscal 1999, there were 108 EMTALA-related settlements and judgments, with civil penalties totaling $3.4 million. Additionally, when the OIG's April 1999 semi-annual report was published, the OIG was investigating 140 outstanding EMTALA allegations.
11. In 1998, HCFA issued revised interpretive guidelines. While these guidelines do not have the force of law, they are a strong indication of how the administrative agencies will investigate an EMTALA complaint and often have a persuasive effect in judicial proceedings.
12. 42 C.F.R. § 489.24(b) (1998) (an individual on hospital property or in an ambulance not owned by the hospital but on hospital property has "come to the emergency department"); see, e.g., *Arrington v. Wong*, 19 F.Supp.2d 1151 (D. Haw. Sept. 23, 1998) (where a hospital employee directs an ambulance driver to bring an injured individual to a different facility, the individual has not "come to the emergency department" of the hospital); *Hernandez v. Starr County Hosp. Dist.*, 30 F.Supp.2d 970, 972 (S.D. Tex. Jan. 5, 1999) (an individual's presence in a *hospital-owned* ambulance is the equivalent of the patient's "coming to the emergency department").
13. HCFA Interpretative Guidelines § 489.24(a) (1998).
14. See, e.g., *Marshall. v. East Carroll Parish Hosp. Serv. Dist.*, 134 F.3d 319, 322 (5th Cir. Feb. 9, 1998) (MSE may be negligent or constitute malpractice but not violate EMTALA because EMTALA was not intended to be used as a federal malpractice statute); *Camp v. Harris Methodist Fort Worth Hosp.*, 983 S.W.2d 876, 880 (Tex. App. Dec. 31, 1998) (failure to recognize the existence of an emergency medical condition does not result in a viable EMTALA claim, although it may lead to a viable medical malpractice claim).
15. 42 U.S.C. § 1395dd(a).
16. HCFA Interpretative Guidelines § 489.24(a) (1998).
17. 42 U.S.C. § 1395dd(d)(1)(C).
18. 42 U.S.C. § 1395dd(h); HCFA Interpretative Guidelines § 489.24(a), (c)(1), (c)(3) (1988).
19. Id. at § 489.24(c)(3).
20. Health Care Fraud Report, *supra*, at 451.
21. 42 U.S.C. § 1395dd(e)(1).
22. See Louise M. Joy, EMTALA: Interpreting and Complying with Federal Transfer Law, 22 (1999).
23. Id; see 42 U.S.C. 1395dd(e) (a patient is "stabilized" for transfer where he or she received the medical treatment necessary to ensure, within reasonable medical probability, that the condition is not likely to materially deteriorate as a result of or during the transfer); see also 42 C.F.R. 489 (1998) (a patient is "stabilized" for discharge when the physician determines with reasonable clinical confidence that continued care of the patient can be performed as an outpatient

Multicare Associates of the Twin Cities, a multispecialty/multi-location clinic, located in the northern suburbs of Minneapolis/St. Paul, has available positions for BC/BE physicians in the following departments:

**Family Practice**

**OB/GYN**

Excellent salary/benefits package includes paid insurance, flexible benefits plan, 401K, profit sharing, continuing medical education. Shareholder status potential after one year.

Contact Jeannine Schlottman
Administrator
7675 Madison St. NE
Fridley, MN 55432
612/785-3338

MULTICARE ASSOCIATES OF THE TWIN CITIES

or later as an inpatient, and the patient is provided appropriate follow-up care with discharge instructions).
24. 42 U.S.C. § 1395dd(b)(2).
25. Id. at § 1395dd(c)(1)(A)(ii).
26. 42 C.F.R. 489 (1998).
27. See, e.g., *Summers v. Baptist Med. Ctr. Arkadelphia*, 91 F.3d 1132, 1137-38 (8th Cir. 1996) (a plaintiff's claim of an EMTALA violation is not required to prove the hospital acted with improper motive); *Cleland v. Bronson Health Care Group, Inc.*, 917 F.2d 266 (6th Cir. 1990) (holding that EMTALA claims are not viable absent proof of improper motive).
28. 119 S.Ct. 685 (Jan. 13, 1999). In *Roberts*, Wanda Johnson was flown to the defendant hospital after she suffered severe injuries, including a brain injury, when she was run over by a truck. The hospital did not turn Johnson away even though she had no private health insurance and did not qualify for Medicaid. In fact, Johnson was admitted to the hospital, where she remained on a ventilator for two months, incurring nearly $390,000 in medical expenses. After she was removed from the ventilator, the hospital began preparing Johnson for a transfer to a non–acute care facility. Two days before her scheduled transfer, however, Johnson began to run a fever and the hospital initiated the appropriate treatment. Apparently, the treatment was not effective, as Johnson's temperature soared the day after the transfer, requiring her to be returned to an acute care facility.
29. 42 U.S.C. § 1395dd(c)(1)(A)(ii)
30. Id. at § 1395dd(g).
31. 59 Fed. Reg. 32,105 (1994).
32. 42 C.F.R. 489.20(m) (1998).
33. Joy, *supra*, at 47.
34. See Id. at 45-46.

American Heart Association℠
*Fighting Heart Disease and Stroke*

AMERICAN HEART ASSOCIATION MEMORIALS & TRIBUTES℠

1-800-AHA-USA1

This space provided as a public service.
©1994, American Heart Association

North Memorial Health Care®
*An Organization of Health Care Professionals*

*North Memorial is an independent, full-service facility located in the northwest Twin Cities with more than 700 physicians in more than 40 specialties. We are known as the trauma center in the region with other notable programs including the Hubert H. Humphrey Cancer Center, North Heart Center, North Rehabilitation Center, and the Women's and Children's Center. We also strongly promote physician practice opportunities within our associated clinics, including those that are independently owned, joint ventures and hospital owned. Which means you can choose from large or small and multi or single specialty practice options in metro, suburban or rural locations. North Memorial offers very competitive salaries and excellent fringe benefits. Sounds like the perfect job, doesn't it?*

*Positions now available for BE/BC physicians in:*

- Family Practice
- OB/GYN
- Internal Medicine
- Gastroenterology
- Hematology/Oncology
- Emergency Medicine
- Pediatrics
- Maternal Fetal Medicine
- Urgent Care

For consideration to be a part of our team please mail, fax, or e-mail cover letter and C.V. to:

Mark A. Peterson, Physician Recruiter
North Memorial Health Care
3300 Oakdale Avenue North
Robbinsdale, MN 55422
Phone: (800) 275-4790 or (612) 520-1336
Fax: (612) 520-5997
E-mail: mark.peterson@northmemorial.com

# Your first call for systems help.




MMIC CONSULTING...FOR THE INFORMATION SIDE OF YOUR BUSINESS

### Information systems designed with your unique needs in mind

Our experts understand the nuances of your healthcare business; in fact, it's our specialty. We'll work with you, assessing your current systems, and recommending cost-effective solutions. From software selection to its tactical implementation, we'll partner with you every step of the way including re-engineering your workflow to assure the complete success of your new system.

### Solutions that support your data infrastructure

Creating an efficient and private data infrastructure which allows your computers, users and application software to communicate with each other is essential. Our trained and certified technicians will install, configure and fine-tune your network to meet your communication needs.

***To learn more about MMIC Consulting, call 1-800-328-5532 or visit us at www.mmicconsulting.com***

### A full spectrum of Internet services

MMIC Consulting can expertly develop and host your Web site. We can also set up your Intranet or Extranet. Our secure servers meet all HIPAA security standards, so you can rest assured your environment is safe. We'll also monitor each aspect of system performance and support your user community with training and help desk services.

MMIC Consulting is the IT consulting operation of Midwest Medical Insurance Company

# A Vehicle Buying and Leasing Program With Special Benefits

- One stop shopping by phone or fax
- Buy or lease
- Any make or model
- Car, truck or sport utility vehicles
- New or used
- Save time
- Save money
- Eliminate shopping frustration

Remember, whether you purchase or lease, MMBR Motor Services and Creative Leasing, Inc. will help you get the most vehicle at the best price. We'll even help you sell your old auto.

Use your money wisely. For personal attention and lease or purchase information on any vehicle, call 612/623-2860, or toll-free 800/298-MMBR.

MMBR Motor Services is a service of Minnesota Medical Business Resources, a physician-owned corporation of your medical association.

**New Vehicle Leases****

| | Make/Model | MSRP | Your Price* | 24 Mo | 36 Mo | 48 Mo |
|---|---|---|---|---|---|---|
| **Cars** | 2000 Honda Accord LX, 4dr, AT | $19,755 | **$18,521** | $357 | $303 | $279 |
| | 2000 Toyota Camry LE, 4dr, AT | $20,743 | **$19,166** | $396 | $322 | $291 |
| | 2000 Subaru Legacy Outback Wagon | $23,990 | **$22,805** | $424 | $365 | $338 |
| **SUVs** | 2000 Chev Blazer LS, 4 dr, 4WD | $26,995 | **$24,795** | $417 | $340 | $347 |
| | 2000 Ford Explorer XLT, 4dr, 4WD | $29,675 | **$26,808** | $550 | $461 | $408 |
| | 2000 Dodge Durango SLT, 4 dr 4WD | $29,425 | **$27,136** | $496 | $429 | $386 |
| | 2000 Chev Tahoe LS, 4WD, 4dr | $35,184 | **$32,315** | $562 | $490 | $445 |
| | 2000 Chev Suburban LS, 4WD, 1/2ton | $37,387 | **$34,248** | $575 | $507 | $462 |
| | 2000 Ford Expedition XLT, 4WD, 4dr | $33,165 | **$29,047** | $531 | $459 | $408 |
| **Pickups** | 2000 Chev, 1/2ton Extcab, LS, 4WD | $27,781 | **$24,695** | $416 | $367 | $335 |
| | 2000 Dodge 1/2ton Quadcab, SLT, 4WD | $27,315 | **$23,941** | $409 | $362 | $329 |
| | 2000 Ford 1/2ton Supercab, XLT, 4WD | $27,500 | **$23,986** | $476 | $401 | $360 |

MANY REBATES & LOW FINANCING AVAILABLE ON QUALIFIED VEHICLES— ALL FIGURES QUOTED ARE BEFORE ANY REBATE REDUCTIONS

Effective date 1/6/2000

* Sale price before tax, license, and license fees.

** All lease payments listed above are monthly lease payments before tax on factory ordered leases. These lease payments are based on a $0.00 cap reduction and 15,000 miles/year. The only moneys needed to start the above leases are first payment, security deposit, and license for the first year.

*** Lease payments/month on 2000 model year vehicles should be just about the same as 1999s. Order your 2000 model today!



**MMBR**

MOTOR SERVICES

MINNESOTA MEDICAL BUSINESS RESOURCES

OWNED BY MMA & HMS

# From Tea Service to Community Service

*More than a women's social club, the Minnesota Medical Association Alliance is a coed organization with a mission to improve health care and communities.*

Jennifer Thistle

The Minnesota Medical Society auxiliary was established in 1922. Then a circle of doctors' wives, the group first met in Dayton's Tea Room to socialize and discuss shared concerns. Today the group is known as the Minnesota Medical Association Alliance (MMAA) and its members, both men *and* women, are dedicated to improving health care and promoting community health initiatives—as well as building new friendships.

Steven D. Stephens, of the Park Region Medical Society Alliance, is among the physician spouses contributing their time and skills. He is president-elect of his component society alliance and is multimedia coordinator for the MMAA. "It's important to leave behind the old image as a ladies auxiliary and to focus on the new image as a coed alliance," Stephens says. "We continue to stress supporting the health needs of our community and the social benefits of being an Alliance member."

Stephens, an employee benefits consultant and independent agent of AFLAC, a supplemental insurance company, became active in the Alliance in 1998. His wife, Wendy C.C. Stephens, M.D., is a family physician in Fergus Falls and has been a member of the Minnesota Medical Association (MMA) since 1995.

One of two male Alliance members in the Park Region and the father of seven children, Stephens says the Alliance has made him more aware of community needs. "Just as many of us [physician spouses] manage the households of physicians, we can also help inform them of key health issues in the community, state, and nation." Stephens says he hopes Alliance members will move into 2000 with open minds, realistic expectations, and a commitment to help people in need—beyond helping out financially.

Alliance member Jeffrey Hill shares those hopes. Hill, membership secretary for the Ramsey Medical Society Alliance, wants the Alliance to become more of a service organization through community efforts and activities such as fund-raising and educating community groups. Hill wants to see strong political advocacy for physician and medical needs. According to Hill, combining forces with the MMA adds power in numbers, which can lead to change at the Legislature.

"The Alliance needs to be about service, not a tea party," says Hill, a systems designer at Ceridian Corporation who does volunteer work on his own and on behalf of the Alliance. These activities range from serving on the Vadnais Heights Trails and Transportation Commission to raising money for Deva House, a new hospital, respite home, and educational center in St. Paul. In September, Hill received a Stop the Violence Award from the MMA for his volunteer work with the Sexual Violence Center, where he answers the crisis line. He also speaks to high school students about date rape and sexual harassment.

Hill encourages physician spouses, especially men, to become active in the Alliance. "Get involved. We can accomplish a lot through the Alliance. We can learn from each other and get support for our roles," Hill says. "Men need to get involved in volunteering. There are lots of opportunities. Men can serve as role models for boys, especially those without other male role models in their lives."

Hill's wife, Diane ("Dee Dee") Ogren, M.D., is a general surgeon with St. Paul Surgeons. The couple has two children under age 10 and a baby on the way. "It's good to have camaraderie with spouses of Dee Dee's colleagues and those involved in the Alliance," says Hill, who was recruited for the Alliance at a St. Paul Surgeons holiday party. "Dee Dee's very good at respecting my career—at a level equal with her own. We're able to share our responsibilities of house and kids equally. Nonetheless, it's nice to have the support and friendship of other physician spouses whom I have met through my involvement."

Sometimes the Alliance member is also a physician. That's the case with internist and MMA President John Van Etta, M.D., whose wife, Linda, is an infectious

disease specialist. The Van Ettas, who have a daughter in high school, live in Duluth and practice at St. Mary's/ Duluth Clinic.

John Van Etta became involved in the Alliance during his third year of medical school, when he and Linda lived in Winona and the local alliance encouraged the couple to join.

"The Alliance does a lot of hard work to educate children about health issues, including violence and smoking," says John Van Etta, who believes the MMA and MMAA efforts are complementary. "The money the Alliance raises for medical students is a tremendous help with all the costs students endure," he says. "It's helpful for spouses of physicians to be informed of current health care issues, and a good opportunity to be involved in their community."

Zumbro Valley Medical Society Alliance Co-president Bradley Barnes has been an active member for almost five years. "I went to see what it was all about—and I've stayed," says Barnes, who came from San Francisco nearly six years ago with his wife, Roxann, an anesthesiologist at Saint Marys Hospital in Rochester. They have three children, aged 9 and under. Bradley is the primary homemaker, spending about 90 percent of his time maintaining their household and 10 percent working as a funeral director, mainly overseeing evening visitations.

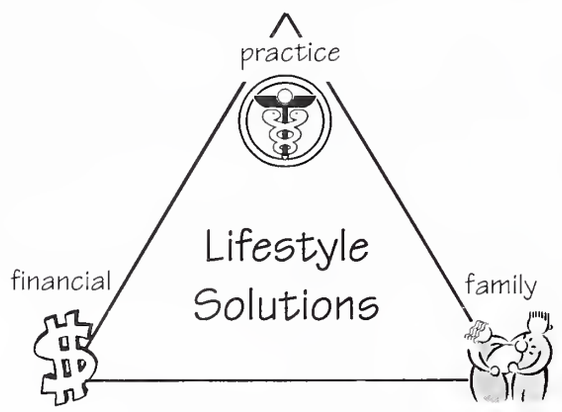
His interest in meeting others with similar interests and concerns about schools, children, and public health drew him to the local alliance. "The Alliance group statewide is well-educated, full of diverse backgrounds, and very welcoming," Barnes says. "Men bring another perspective—one that can be quite refreshing."

Increasing membership is a priority for the Alliance, says MMAA's immediate past-president, Dianne Fenyk. "We are marketing more to younger spouses and men. The Alliance doesn't do as many social events anymore, but rather, focuses on more community-related opportunities." MM

*Jennifer Thistle is the MMA outreach field representative.*

*For more information about Alliance membership at the state and county levels, contact MMAA staff member Karen Tourdot at 612/378-1875 or 800/342-5662.*

PROVIDING




SOLUTIONS

• Emergency Medicine • Locum Tenens

ACUTE CARE, INC.

For more information, please call
800.729.7813 or 515.964.2772
e-mail address: liza@acutecare.com or jeffw@acutecare.com
home page: http://www.acutecare.com

Owatonna — A place to practice. A place to live.

Owatonna Clinic — part of Mayo Health System — is expanding its healthcare team in orthopedic surgery, emergency medicine, family medicine and internal medicine.

Learn more about our practice and our community. Owatonna offers:
• Excellent schools
• Growing business community
• Active arts center
• Central location

**Contact David Berg, Owatonna Clinic, at 507-455-4441.**

Owatonna Clinic
*Mayo Health System*

# You know it takes more than this to run a successful medical practice.




That's why Office Depot and
Minnesota Medical Business Resources give you...

## The Office Supply Program

Minnesota Medical Business Resources and Office Depot are pleased to offer the following special program for members of the Minnesota Medical Association and their clinics.

The Office Supply Program includes:

- Up to 80% off list price on the items most frequently ordered by medical clinics.
- Average of 45% off list price on all other stocked items.
- 750 items of furniture available for next day delivery.
- Easy ordering via Fax or Internet—customized forms developed for your clinics based upon frequently ordered items.
- Retail market pricing on electronics, business machines and software.
- FREE next business day delivery to all of Minnesota.
- Retail store purchasing cards for your emergency needs, copies, specials. *Receive your contract pricing at our retail stores.*
- Quarterly rebate of 3% on stocked item purchases.

To establish an account or if you have questions, please contact:

**Brad Broman**
**Account Manager**
**Direct line: 612-513-4056 • Outstate: 800-392-4777 x4056**
**email: bbroman@officedepot.com**

Office DEPOT®
Business Services Division

MMBR
Minnesota Medical Business Resources
Owned by MMA & HMS

# *A Calendar of Continuing Medical Education Courses*

*Provided as a service of the MMA Committee on Accreditation and CME.* For assistance with scheduling meetings or for information on future medical meetings and CME courses, please contact the MMA office: 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; 612/378-1875. For a complete listing of our calendar, visit the MMA Web site at www.mnmed.org. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

## FEBRUARY 2000

Feb. 7-11 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Feb. 7-11 **Neurology in Clinical Practice** Mayo Foundation; Maui Prince Hotel at Makena Resort, Makena, Maui, HI. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Feb. 24-26 **Mayo Clinic State-of-the-Art Symposium: Arrhythmia Management** Mayo Foundation; Silverado Resort, Napa, CA. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Feb. 24-Mar. 2 **Winter Medical Conference** Minnesota Medical Association and Ramsey/Hennepin Medical Societies; Gala Resort Playacar, Mexican Riviera, Playa Del Carmen, Quintana Roo, Mexico. CONTACT: Roger Johnson, Ramsey Medical Society, P.O. Box 131690, St. Paul, MN 55113; 612/362-3799.

Feb. 27- Mar. 3 **Brain to Pelvis: 2000—The Seventh Conference** University of Minnesota; Pines Lodge, Beaver Creek, CO. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

Feb. 29-Mar. 3 **Whitefish 2000: Timely Issues for the New Millennium** University of North Dakota School of Medicine and Health Sciences and MeritCare Health System; Grouse Mountain Lodge, Whitefish, MT. CONTACT: Whitefish Conference Hotline, 701/234-6913, or e-mail (whitefishconference@meritcare.com).

## MARCH 2000

Mar. 1-2 **Geriatric Drug Therapy** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

Mar. 3 **Prevention and Management of Atherosclerotic Diseases** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

Mar. 6-10 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Mar. 17 **Women's & Children's Health Conference** St. Mary's/Duluth Clinic Health System; Duluth Entertainment Convention Center, Duluth, MN. CONTACT: Catherine Koski, Medical Education Coordinator, 400 East Third Street: Maildrop 5AV2ME, Duluth, MN 55805; 218/725-3854.

Mar. 24 **Reclaiming the Soul of Medicine: A Practical Approach to Spirituality and Patient Care** Minnesota Medicial Association; Augsburg College, Minneapolis, MN. CONTACT: Augsburg College, Department of Continuing Studies, CB #47, 2211 Riverside Avenue, Minneapolis, MN 55454; 612/330-1406.

Mar. 27-31 **Selected Topics in Internal Medicine** Mayo Foundation; The Westin Resort, Hilton Head Island, SC. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

## APRIL 2000

Apr. 3-7 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Apr. 7 **Cardiac Arrhythmias** University of Minnesota; Earle Brown Heritage Center, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

Apr. 12-15 **Gait and Clinical Movement Analysis Society** Mayo Foundation; Mayo Foundation, Rochester, MN. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Apr. 13-14 **Spring Refresher** Minnesota Academy of Family Physicians; Radisson Hotel, St. Paul, MN. CONTACT: Minnesota Academy of Family Physicians, 600 S. Highway 169, Suite 1680, St. Louis Park, MN 55426; 612/542-0130 or 800/999-8198.

Apr. 13-15 **Upper Extremity Trauma: New Directions for the 21st Century** Mayo Foundation; Pointe Hilton Resort at Squaw-Peak, Phoenix, AZ. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Apr. 14 **Healthy Transitions: Best Practices for the Care of Adolescents** Hennepin County Medical Center; Pillsbury Auditorium, Hennepin County Medical Center, Minneapolis, MN. CONTACT: Hennepin County Medical Center, Continuing Medical Education, 701 Park Avenue, Mail Code 861B, Minneapolis, MN 55415-1829; 612/347-2075 or 888/263-4262.

Apr. 14-15 **Annual Ophthalmology Course** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

Apr. 28-29 **Annual Meeting of the North Central Chapter Infectious Diseases Society of America** North Central Chapter Infectious Diseases Society of America; Accreditation Sponsor: University of Minnesota; Sheraton Inn Airport Minneapolis/St. Paul, MN. CONTACT: Margaret L. Simpson, M.D., HCMC, 701 Park Avenue, Minneapolis, MN 55415-1829; 612/347-2981 or Mary Majerus, 1707 75th Street NW, Rochester, MN 55901; 507/284-3989.

## MAY 2000

May 1-5 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

May 2-5 **7th International Surgical Pathology Symposium** Mayo Foundation; The Queen Elizabeth, Montreal, Quebec, Canada. CONTACT: Registrar, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

May 6-7 **Behavioral Pediatrics for Primary Care** Children's Hospitals and Clinics; Madden's Resort, Brainerd, MN. CONTACT: Betsy Julius, Medical Education, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/813-5884.

May. 8-12 **Family Practice Review: Update 2000** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

May. 12 **16th Annual Heart Conference** St. Mary's/Duluth Clinic Health System; Duluth Entertainment Convention Center, Duluth, MN. CONTACT: Diane Torvick, 400 East Third Street, Maildrop 5AV2ME, Duluth, MN 55805; 218/786-3838.


*First Call Physicians, Inc.*

*A Locum Tenens Service*
*500 Eighth Ave. S.*
*Buffalo, MN 55313*

**Clinics/Hospital** | **Physicians**

*Locums Coverage*
=
*Revenue*

- Patients falling through the gaps?
- Physician burn-out or illness?
- Shortage of physicians?

- Earn more with less time.
- No administrative headaches.
- Malpractice premium paid.

*Experience, Service, Honesty*
*Call (metro) 682-3852*
*(toll free) 888-682-3852*

*(You'll be glad you did!)*

**Minnesota Opportunities**

Delacore Resources, also known as *"The Minnesota Recruiter,"* has opportunities in Minnesota for the following types of physicians:

- **Dermatology**
- **Emergency Medicine**
- **Family Practice**
- **General Surgery**
- **Internal Medicine**
- **OB/GYN**
- **Orthopedic Surgery**
- **Pediatrics**
- **Psychiatry**

A detailed practice profile is available, or visit our website at **www.mnrecruiter.com**

*Contact The Minnesota Recruiter confidentially at*

**Delacore Resources**
**1-800-967-2711**
**FAX (320) 587-7252**
**delacore@hutchtel.net**

*St. Cloud, Minnesota*



Eleven board certified emergency medicine physicians in search of an additional BC/BE emergency medicine physician to serve a progressive and growing community. 1410.5 contracted hours with a longevity feature. Fair and equitable scheduling with eight- and nine-hour shifts. Central Minnesota Emergency Physicians (CMEP) is affiliated with St. Cloud Hospital, a 330-bed regional medical center. Our state-of-the-art Level II Trauma Center serves over 34,000 patients annually and provides full specialty backup. A walk-in care clinic is set to open this fall. Outstanding compensation and benefits package includes health, disability, and malpractice insurance, generous CME allowance, and retirement program. St. Cloud is a growing, family-oriented college town of 100,000 conveniently located between Minneapolis/St. Paul and prime Minnesota lake areas. Please contact Karla Donlin or Dr. Dan Fark at 800/835-6652, send or fax CV to Karla Donlin, St. Cloud Hospital, 1406 6th Avenue North, St. Cloud, MN 56303. Fax to 320/255-5711, e-mail: donlink@centracare.com

May. 19-21 **Sixth International Symposium on MPS and Related Diseases** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

May 22-26 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

## JUNE 2000

June. 2-3 **North Central Neonatology Issues Conference** University of Minnesota; Osthoff Resort, Elkhart Lake, WI. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

June 7-10 **Annual Surgery Course: Advances in Trauma & Critical Care** University of Minnesota; Ted Mann Concert Hall, University of Minnesota West Bank, and Hyatt Regency Hotel, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

June 15 **2000 Brain Injury Conference - Maximizing Outcomes: The Spectrum of Prevention** Mayo Continuing Nursing Education; Mayo Clinic, Rochester, MN. CONTACT: Mayo Continuing Nursing Education, Eisenberg S-41, 200 First Street SW, Rochester, MN 55905; 800/545-0357.

June 19-23 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

June 22-24 **Topics and Advances in Pediatrics** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

## JULY 2000

July 10-14 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

ASPEN Medical Group

Aspen Medical Group is a 160+ provider multi-specialty group with 9 clinics located throughout the Minneapolis/St. Paul metro area. We are currently seeking BE/BC physicians for the following specialties:

*Internal Medicine*
*Urgent Care*

Aspen Medical Group is governed by its own physicians and health care providers. Guaranteed base salary available for the first two years. Competitive benefits package.

For further information, plase contact:

Nancy Borgstrom, Provider Services Coordinator
1020 Bandana Boulevard West
Saint Paul, MN 55108
651-641-7081
fax 651-641-7151
e-mail nborgstr@aspenmed.org

EOE. No J-1 opportunities available.

*Dermatology, General Surgery,*
*Internal Medicine, Otolaryngology and Pediatrics*

There are immediate openings at Brainerd Medical Center for the following specialties: Dermatology, General Surgery, Internal Medicine, Otolaryngology, and Pediatrics.

Brainerd Medical Center, P.A.
- 40-Physician independent multi-specialty group
- Located in a primary service area of 50,000 people
- Almost 100% fee-for-service
- Excellent fringe benefits
- Competitive compensation
- Exceptional services available at 162-bed local hospital, St. Joseph's Medical Center

Brainerd, Minnesota
- Surrounded by the premier lakes of Minnesota
- Located in central Minnesota less than 2 ½ hours from the Twin Cities, Duluth and Fargo
- Large, very progressive school district
- Great community for families

Call collect to Administrator:
- Curt Nielson
  (218) 828-7105
  or (218) 829-4901
  2024 South 6th Street
  Brainerd, MN 56401

BMC

Aug. 18-19 **Inpatient Medicine: 1st Annual Midwest Regional (NAIP) Meeting** Mayo Foundation; Mayo Foundation, Rochester, MN. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

AUGUST 2000

Aug. 21-25 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

SEPTEMBER 2000

Sept. 7-9 **The 2nd Mayo Vascular Symposium** Mayo Clinic, North American Chapter of the International Union on Angiology, American Venous Forum; Mayo Civic Center, Rochester, MN. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Sept. 11-15 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

OCTOBER 2000

Oct. 2-6 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

NOVEMBER 2000

Nov. 3 **Spiritual Care Research: Applications to Practice** Mayo Continuing Nursing Education; Mayo Clinic, Rochester, MN. CONTACT: Mayo Continuing Nursing Education, Eisenberg S-41, 200 First Street SW, Rochester, MN 55905; 800/545-0357.

Nov. 6-10 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

DECEMBER 2000

Dec. 4-8 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.




*ALEXANDRIA CLINIC, P. A.*

The Alexandria Clinic, P.A., is a 32-physician multi-specialty group currently recruiting additional physicians in the following specialties:

- ENT
- FAMILY PRACTICE
- GENERAL SURGERY
- NEPHROLOGY
- OPHTHALMOLOGY

First-year salary guarantee with production bonus, second-year partnership. Excellent contract benefits. If interested in joining a young, growing organization located in beautiful lakes area community, please contact:

Administrator
Alexandria Clinic, P.A.
610 30th Ave. W., Alexandria, MN 56308
320•763•5123

**Brainerd Medical Center, P.A.**
**2024 South Sixth Street, Brainerd, MN 56401**
**218-828-7105**

**PEDIATRIC OPPORTUNITY**

**A Pediatric opportunity exists at Brainerd Medical Center. Would you like to live in a premiere vacation area in a community that will meet any family need?**

If so, the Brainerd area is just for you! Look at the possibilities our multi-specialty clinic has to offer:

- No primary call
- Four day work week
- General Pediatric practice plus
- Enlarging consultative practice
- Active teaching program for med students and residents
- Excellent Family Practitioners
- Great Nurse Practitioners
- Superior Urgent Care and ER coverage
- Private Catholic hospital will exceed your expectations
- Above average income opportunity

To obtain more infromation about this Pediatric opportunity, please feel free to contact Pediatrician, Dr. Michael V. Severson, or Curt Nielsen, Clinic Administrator at the above address or phone number.

# *Physician Opportunities and Miscellaneous Listings*

***Classified rates are $2.50 a word (300-word maximum). Minimum monthly charge is $50; with box number $5 additional. Ads will not be accepted by phone. (Effective January 2000, the rates will be $2.50 a word for all new ads.)***

- Placement of ads must be made six weeks before the date of publication, e.g., February 15 for April ad. Please send ad requests to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; or by fax, 612/378-3875; or e-mail, mm@mnmed.org
- The publisher reserves the right to decline or withdraw advertisements. The publisher is not responsible for clerical or typographical errors and is not permitted to divulge the identity of advertisers who have replies sent to box numbers.
- Cancellation of ads must be made by the first of the month preceding month of issue.

---

**Mankato Clinic, Ltd.,** is seeking additional BC/BE physicians in the following specialties: occupational medicine, dermatology, gastroenterology, pulmonary medicine, radiology, and urgent care. The Mankato Clinic is a 70-physician multispecialty group practice in south-central Minnesota with a trade-area population of 250,000+. Guaranteed salary first year, incentive thereafter with full range of benefits and liberal time off. For more information, call Dr. Bryon C. McGregor, Medical Director, or Roger Greenwald, Executive Vice President, 507/625-1811, or write PO Box 8674, Mankato, MN 56002-8674. (*10/98-R)

---

**Urgent Care Physicians:** Independent group seeking part-time/full-time physicians to staff our urgent care facilities in Bloomington, Burnsville, Edina, and Lakeville. Contact the director of support services, 612/985-8931, or send inquiries to Quello Clinic Ltd., 7801 East Bush Lake Road, Suite 300, Bloomington, MN 55439. (*6/98-R)

---

**Family Phisicians:** Independent, well-established suburban FP group seeking part/full-time FPs who like doing OB and full FP services. Clinics in Bloomington, Burnsville, Edina, Eden Prairie, Lakeville, and Savage. Excellent call schedule. Contact: Medical Director at 612/985-8922 or write Quello Clinic Ltd., 7801 East Bush Lake Road, Suite 300, Bloomington, MN 55439. (*7/98-R)

---

**Olmsted Medical Center** is seeking BC/BE physicians in family medicine, emergency medicine, and dermatology to join our 75-physician multispecialty group. Great opportunity for well-trained physicians to join a family-friendly group in a dynamic, progressive practice. In addition to its main office and hospital in Rochester, the Olmsted Medical Center system includes 11 branch office locations in southeastern Minnesota. Excellent salary and benefits, including health benefits, malpractice, spending accounts, educational funds, profit sharing, 401(k)/403(b), and relocation assistance. Send CV to Lois Till-Tarara, Olmsted Medical Center, 1650 Fourth Street SE, Rochester, MN 55904; 507/287-2430. Fax: 507/285-8973. (*3/99-R)

---

**Falls Medical Search Seeks Physicians** for practice opportunities locally and nationally. To explore new practice options confidentially, send your CV or call Pat Falls, Falls Medical Search, 34 Forest Dale Road, Minneapolis, MN 55410; 612/922-0207 or 800/383-8916. (*5/92-R)

---

**Fairview Health Services:** Practice opportunities in urban, suburban, and rural locations. Moonlighting opportunities also available. Please contact Fairview Physician Recruitment and Retention at 612/672-2288, 800/842-6469, fax: 612/672-2986, e-mail: recruit1@fairview.org or visit our Web site at www.fairview.org/recruitment. (1/00-R)

---

**BC/BE Internist:** Outstanding opportunity for well-trained individual interested in balancing personal values and professional endeavors. Seeking a seventh BC/BE general internist to join a 38-physician multispecialty group. Visit www.lrhc.org. Excellent salary/benefits package includes guaranteed salary the first year with full partnership after one year. For confidential information on this opportunity, contact David T. Bjork, M.D., Bruce E. Money, M.D., or Jim Wilkus, Administrator, 615 South Mill Street, Fergus Falls, MN 56537, 218/739-2221. EEO/AA. 3-3/00

---

**Family Physicians:** Large, independent, multispecialty clinic with primary care base located in northwest quadrant of Twin Cities seeks part/full-time family physicians. Admit to only one hospital (North Memorial). Option to do OB. Contact: Tom Harrer, North Clinic, 612/520-7964. 4-3/00

---

**OB/GYN, General Surgeon, Pediatrician, and Ophthalmologist:** BC/BE to join progressive 37-physician multispecialty group practice. Rural setting with metropolitan practice style, 25 miles from Minneapolis. Group has excellent reputation and large geographical referral area. Recently expanded facility is adjacent to newly remodeled 110-bed hospital. Comprehensive benefit package with excellent remuneration. Interested physicians should contact Joseph E. Van Kirk, M.D., Lakeview Clinic Ltd., 424 State Highway 5 West, Waconia, MN 55387. 612/442-4461. AA/EOE. 3-2/00

---

**Fergus Falls Medical Group, P.A.:** The Fergus Falls Medical Group is expanding its 38-physician multispecialty clinic and is seeking physicians in the following specialties: dermatology, family practice, internal medicine, ob/gyn, ophthalmology, optometry, and orthopedics. Excellent

salary/benefits package includes guaranteed salary the first year with full partnership after one year. For confidential information on this opportunity, contact David T. Bjork, M.D., or Jim Wilkus, Administrator, 615 South Mill Street, Fergus Falls, MN 56537, 800/247-1066. EEO/AA. 3-3/00

---

**Urgent Care Physicians:** HealthEast Care System is seeking physicians for part-time evening and weekend urgent care shifts at its South St. Paul location. Interested family practice, emergency medicine, or internal medicine physicians should contact Karen Karlinski, M.D., HealthEast Urgent Care, 724 19th Avenue North, South St. Paul, MN 55057. Phone: 651/232-6375. 1-2/00

---

**Emergency Medicine:** Part-time emergency physicians needed at Lakeview Hospital in Stillwater, Minnesota. Serves 9,000 patients a year, low acuity, excellent backup and compensation. Great opportunity for emergency medicine or family practice residents to pick up added income and experience. Contact Thomas Monahan, M.D., Stillwater Medical Group, P.A., 651/439-1448, ext. 231. 4-2/00

---

**Stillwater Medical Group, P.A.,** seeks a BC/BE internist to join our 40-physician multispecialty group. Excellent salary and benefits package. For more information on this opportunity, contact Mark Fisher, Administrator, 915 South Greeley Street, Stillwater, MN 55082. E-mail markf@lakeview.org, or call 651/439-1448, ext. 301. 1-2/00

---

## Hubert H. Humphrey Cancer Center

*A Member of North Memorial Health Care*

The Hubert H. Humphrey Cancer Center is seeking a tenth oncologist to add to its growing suburban Minneapolis practice. HHHCC supplies hematology and oncology consultative services to three Minneapolis hospitals and outreach services in rural Minnesota and Wisconsin. We offer active clinical research protocols through GOG, pharmaceutical companies, and Metro-MN CCOP (ECOG, NSABP, RTOG, MDA, North Central Cancer Treatment Group).

We offer an excellent benefits package that includes a competitive salary; health, dental@@, life, disability and malpractice insurance; vacation/CME; generous 401k retirement plan; relocation expense and more.

Whether you are looking for a cosmopolitan urban environment or a clean, safe suburban neighborhood, Minneapolis is nationally recognized as an outstanding place to live. We have award-winning school systems, an abundance of lakes and parks, affordable housing and a variety of year-round activities.

***Mail, Fax, or E-mail Cover Letter and C.V. to:***

Mark A. Peterson, Physician Recruiter
North Memorial Health Care
3300 Oakdale Avenue North
Robbinsdale, MN 55422

**Phone: (800) 275-4790 or (612) 520-1336 Fax: (612) 520-5997**
**E-mail:mark.peterson@northmemorial.com**

---



*St. Cloud, Minnesota*—St. Cloud Hospital/Mayo Family Practice Residency Program, a successful, community-based, unopposed, 4-4-4 Family Practice Residency program sponsored by Mayo Graduate School of Medicine seeks a full-time BC physician/faculty member to join its experienced faculty. As a member of this team, your responsibilities will include 50 per cent teaching and resident supervision and 50 per cent direct patient care, including inpatient, outpatient, and maternity care. We offer a highly competitive salary commensurate with training and experience and benefits including relocation allowance, four weeks of paid vacation, and two weeks of CME. This program emphasizes doctor-patient relationships, rural practice preparation, procedural training, obstetrical care, evidence-based medicine and an adult learner model. St. Cloud is a growing, family-oriented college town of 100,000 conveniently located between Minneapolis/St. Paul and prime Minnesota lake areas. Please contact George Schoephoerster, M.D., at 800/999-1875, fax CV, 320/240-3165, or e-mail: schoephoersterg@centracare.com

**✚ St.Cloud Hospital / Mayo Family Practice Residency**

---

# Emergency Medicine Opportunities

Emergency Practice Associates provides quality emergency physician services. Our physicians work as independent contractors in a growth-oriented, physician-supported environment.

***full time opportunities***

| | |
|---|---|
| *GRAND RAPIDS, MN* | Itasca Medical Center<br>Medical Director and Staff Physician |
| *HIBBING, MN* | University Medical Center–Mesabi<br>Staff Physician |
| *LITTLE FALLS, MN* | St. Gabriel's Hospital<br>Staff Physician |
| *NEW ULM, MN* | New Ulm Medical Center<br>Medical Director and Staff Physician |

***part time opportunities***

| | |
|---|---|
| *AITKIN, MN* | Riverwood Health Care Center |
| *CROSBY, MN* | Cuyuna Regional Medical Center |
| *ST. PETER, MN* | Community Hospital & Health Center |

EMERGENCY PRACTICE ASSOCIATES
BOX 1260
WATERLOO, IA 50704
FAX: 319-236-3644

**Call the recruiting specialist today at 1-800-458-5003**
www.epamidwest.com

## Picture your future with ACMC... We think you'll fit right in!

Imagine yourself practicing in a 100+ multi-specialty group providing primary and secondary care in over 23 specialties in a network of 10 clinics in Southwestern and West Central Minnesota. You would be surrounded by some of the finest lakes and recreational activities in the state with the comforts of a thriving community — outstanding schools, a variety of churches and a healthy business community.

ACMC offers a secure practice among a well-established and respected physician owned group with a very competitive financial and benefits package.

Positions now available for BE/BC physicians in:

Family Practice • Gastroenterology • General Surgery
Internal Medicine • OB/GYN • Oncology
Orthopedic Surgery • Pediatrics

Please contact:
**Kari Bredberg, Physician Recruitment**
**(320) 231-6366 • karib@acmc.com**
Affiliated Community Medical Centers
101 Willmar Avenue SW • Willmar, MN 56201
www.acmc.com

Affiliated COMMUNITY Medical Centers, P.A.

**Internal Medicine:** Bloomington Lake Clinic seeks a BC/BE general internist to join our existing department. We are a multispecialty group formed in 1930 that is owned and governed by its own physicians. We have purposely not aligned with any one health plan or hospital system. We offer a minimum guaranteed salary the first two years with a full range of benefits and the opportunity for ownership. Please contact or send CV to John R. Bjorklund, M.D., President, or Robert Vogel, Administrator, at 3017 Bloomington Avenue South, Minneapolis, MN 55407; 612/721-6511. Fax: 612/721-0239. 3-3/00

**Anesthesiologist–Minnesota:** Established anesthesia group has openings in its existing group practice at hospital sites in Brainerd and Bemidji, Minnesota. We offer full-time or flexible part-time positions with a competitive salary and benefits package. All candidates should be either BE or BC. Direct all inquiries to Thomas Yue, M.D., Regional Anesthesia Services P.A., 15612 Highway 7, Suite 243, Minnetonka, MN 55345; phone 612/932-0998 or fax 612/932-7122. (10/99-R)

**MDsearch** assists medical groups and hospitals in their recruiting efforts. For confidential information on opportunities in the Upper Midwest, send CV and/or call collect Mary Jo Cordes, MDsearch, PO Box 21507, St. Paul, MN 55121; 651/454-7291. Fax: 651/454-7277. (2/93-R)

## We've been practicing medicine for over 80 years. Maybe it's time you joined us.

*We're looking for BC/BE physicians for the following positions:*

**Occupational Medicine**—Our WorkPartners℠ program is well established and has a professional support staff in place. WorkPartnersSM has established relationships with several area employer groups and is a designated provider. Our service area includes a population of over 250,000. No nights or on call.

**Radiology**—Exceptional opportunity to join our Radiology Department. Brand new, state-of-the-art volume acquisition multi-detector, spiral CT scanner coming on line at the Clinic in March necessitates expanding this well established department. This opportunity also includes reading MRI from the region's newest open MRI. Desirable call schedule provides time to enjoy life in this scenic river valley community.

Mankato is home to several major corporation subsidiaries and multi-national companies. We offer a guaranteed first year salary with incentive pay plan. Our full range of benefits includes a generous retirement plan and liberal time-off policy.

**For more information call Dr. Byron C. McGregor, Medical Director at 507-389-8548 or Dennis Davito, Director Physician Recruitment, 507-389-8654 or send CV.**

Mankato Clinic
1230 East Main Street
Mankato, MN 56002-8674

## CAMDEN PHYSICIANS, LTD.

**PRACTICE OPPORTUNITY FOR FAMILY PHYSICIANS AT 3 SITES IN NORTHWEST METRO AREA:**

| CAMDEN OFFICE | FOUR SEASONS | GROVE SQUARE |
|---|---|---|
| 4209 Webber Pkwy. | 9750 Rockford Rd. | 13800 - 83rd Way |
| Mpls., MN 55412 | Plymouth, MN 55442 | Maple Grove, MN 55369 |

Camden Physicians, Ltd., is a growing, independent, physician-owned family practice single specialty group. A competitive salary with excellent benefits and partnership opportunities are offered.

Please contact or send CV to:

William Youmans, M.D. (612-522-6601)
and/or
Edwin A. Olson, Administrator (612-559-0092)

**CAMDEN PHYSICIANS, LTD.**
**9800 ROCKFORD ROAD, SUITE 100**
**PLYMOUTH, MN 55442**
**FAX: 612-559-9404**

Camden PHYSICIANS LTD.

**South Minneapolis:** Community clinic opportunity, family practice-medical director position. Please call Bill at 612/821-2800. 3-4/00

**Medical Director Needed:** Established independent clinic combining medicine and natural health care. Seeking family doctor for town 20 minutes southwest of Minneapolis. Practice the way doctors used to. Contact Dr. Copp or Mary Copp at 612/492-2225. 1-2/00

## Send your ads by e-mail ...

*Minnesota Medicine* accepts classified ads by e-mail. Send your line ads to kleonard@mnmed.org (see page 68 for rates and deadlines). For display advertisements, contact Michele Holzwarth at 612/362-3880 or 800/342-5662.

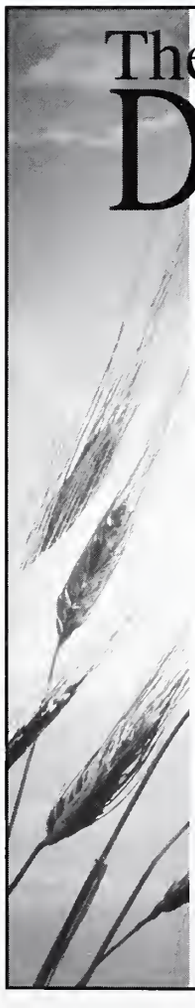
## *SNOWBIRD cont. from page 72*

the other, prevents him from pitching forward and brings him to a stop with grace and style. Finesse and control are the goals. "There's nothing more exhilarating than knowing you put the technique and mechanics together just right."

Nordstrom says his knees and hips are doing fine, but then he's probably in better shape than most guys his age. For 30 years, he's jogged four to five times a week, usually two to five miles. "I've worked hard to stay in good physical shape. If I didn't jog regularly, I wouldn't be able to keep jumping."

Nordstrom could, if he wanted, jump year-round on the new plastic jumps with the sawdust finishes. And he could, if he wanted, jump slopes with rope tows or lifts, which would save him enough time to get in 20 jumps a night. But it's just not the same. He'd rather walk. Twelve jumps in a night is plenty. And there's no substitute for real snow, especially when you can see it from your window. MM

*Howard Bell is a medical writer living in Onalaska, Wisconsin, and a frequent contributor to* Minnesota Medicine.

There Is A Difference

Sioux Valley Hospitals and Health System is seeking family physicians for rural and metro practice sites in South Dakota, southwest Minnesota and northwest Iowa. Let us present you with opportunities in communities with strong economies, excellent schools and little crime. No fees. To find an opportunity right for you, call or send CV:

Physician Placement Program
1100 S. Euclid Avenue
PO Box 5039
Sioux Falls, SD 57117-50396
800-468-3333 or 605-333-7393
Fax: 605-333-1562

Sioux Valley
*Hospitals & Health System*


FEBRUARY 2000 INDEX TO ADVERTISERS


Acute Care Inc. ..... 62
Advanced Imaging ..... 3
Affiliated Community Medical Centers ..... 70
Alexandria Clinic, P.A. ..... 67
Allina Continuing Education ..... 27
Aspen Medical Group ..... 66
Brainerd Medical Center ..... 66, 67
Camden Physicians ..... 70
CentraCare Clinic ..... 47
Delacore Resources ..... 65
Emergency Practice Associates ..... 69
Expert Practice ..... 50
First Call Physicians, Inc. ..... 65
HealthEast Bethesda Lutheran Hospital ..... Cover 2
HealthPartners Institute for CME ..... 24
Hennepin County Medical Center ..... 6
Management Services by Choice ..... 13
Mankato Clinic ..... 70
Mayo Clinic ..... 62
Medical Protective Company ..... 5
MeritCare ..... 54
Midwest Medical Insurance Co. ..... Cover 4, 59
MMA Membership ..... 28
MMBR ..... 21, 24, 30, 60, 63
Multicare Associates of the Twin Cities ..... 58
North Memorial Healthcare ..... 58, 69
Prudential ..... 24
Regions Hospital ..... Cover 3
Sioux Valley Hospital and Health System ..... 71
St. Cloud Hospital ..... 65, 69
Winona Clinic Ltd. ..... 50

# Snowbird *When the snow flies, so does Dr. Leonard Nordstrom ... on skis.*

*By Howard Bell*

Leonard Nordstrom's wife, Karen, suspects the couple ended up living in Bloomington because it's close to the Bush Lake ski jump. "It's true," the Park-Nicollet cardiologist admits. "From our house, we can see the hill. In the fall, I start to get excited. Winter is a great season for me."

Ski jumping, which originated in Norway, is one of those spectator sports most of us are content to watch on TV during the Olympics. Not Nordstrom. Growing up in St. Louis Park, he and his neighborhood buddies built jumping scaffolds with whatever scrap wood they could scavenge. But he didn't make his first real jump until he was 26 years old and in medical school at the University of Minnesota. "That's old for jumping," he says. "It's a kids' sport." So at age 59, Nordstrom is a rare snowbird indeed. "I'm really kind of the oldest one now. The others are in their 40s or younger."

Stay crouched until the launch pad ends, then stand up. That was the extent of the instruction Nordstrom received before that first jump. It was enough. He landed standing. Thirty years later, he's still a frequent flier, making about 200 jumps every season—mostly in the evening after work or on weekends.

A 10-minute climb lugging skis up a slippery slope—all for a few seconds of airborne delight? Absolutely, it's worth it. For one thing, it's good exercise. "I really enjoy walking up the hill." For another, it's fun to fly. "I don't compete. I do it for the pure recreational fun of it," says Nordstrom. "You forget about whatever is bothering you. You feel a sense of fatigue and total relaxation, and at the same time you feel a great deal of joy and excitement."

Two to three hundred feet of elevation separates where Nordstrom begins from where he ends. Down a 33-degree slope of icy snow he travels at 30 to 40 miles per hour. Stick your head out the car window for a taste of that. At the takeoff point, where the slope tapers to 14 degrees, he uncoils from his tight tuck, extends every joint but his ankles, and transfers his weight to the balls of his feet. Now he's flying. "You feel the wind against your body, the air pressure pushing your skis like wings up toward your face as you lean over the tips and float downhill. I don't know how else to say it—it's a really neat feeling."

It's also hard to master. Many never do. Make the mistake of extending your ankles instead of keeping them flexed and you won't lean over your skis far enough. Jump too early and you may land tips first. Either way, it's wipe-out time. Nordstrom has had his share of thrills and spills—a whiplash injury, a battered shoulder, shooting pain down his arm, and some pretty good bruises, but nothing serious. "I fall only about once a season," he says.

Once, during an ice storm, he knew he was in trouble when one ski jumped the track, crossed over the other ski, and sent him flying, arms and legs akimbo. "I was a little concerned while it was happening because the same thing happened to a friend, who ended up crashing into the judge's stand pretty banged up."



**Ski jumper Leonard ("Bud") Nordstrom, M.D. (left), and his son, Andy.**

Fortunately, Nordstrom careened toward an unpopulated side of the hill.

Modern-day ski jumping is all about seeing how far you can fly horizontally, not vertically. For that reason, today's jumps don't kick upward at the liftoff point. Nordstrom is usually airborne for 30 to 40 meters from liftoff to touchdown at the "K Point," where the hill starts to level off. He's never more than six feet off the ground. A ballet-like telemark, in which he places one foot in front of

*Snowbird to page 71*

# Minnesota Medicine

A JOURNAL OF CLINICAL AND HEALTH AFFAIRS



HS/HSL
UNIVERSITY OF MARYLAND AT
BALTIMORE
STACKS
MAY 31 2002
STACKS
REC'D
NOT IN CIRC.

## Seduced by Smoke

MARCH 2000

# Better Inside and Out. Building to be the Best.




You know Regions Hospital for its excellence in emergency, trauma and burn care. Now we're working on a major expansion and renovation designed to expand our expertise in key programs and specialty services—including state-of-the-art facilities and premier programs for heart care, women's services, cancer, surgery, critical care, and gastroenterology. All with an attention to detail that assures a healing environment for physicians, patients and families.

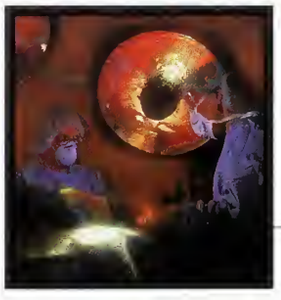
It's all part of our commitment to provide excellent care and convenience to enhance your patients' healing. That's what makes Regions Hospital a premier, full service, private hospital—the hospital of choice for providing outstanding medical care.

For physician consultation, information and referral services, call Regions Hospital Direct, 24-hour physician-to-physician hotline at 1-888-588-9855.






**State-of-the-art Facilities for Heart, Women's, Cancer, Critical Care and Gastroenterology Services**



**Expanded and Renovated Surgical Suites**



**More Private Rooms and Waiting Areas**

Regions Hospital®

640 Jackson Street, St. Paul, MN

© 1999 HealthPartners, Inc., Bloomington, MN

# Minnesota Medicine

Published monthly by the Minnesota Medical Association



COVER
*Illustration by Susan Sanford.*

DEPARTMENTS

2 ..... Editor's Note

33 ..... MMA News & Views

50 ..... CME in Minnesota

57 ..... Classified Ads

63 ..... Index to Advertisers

MMA CAMPAIGN

It's illegal for Medicare to treat Minnesota seniors fairly. MMA physicians ask: **"Is it good medicine?"**

See MMA President Dr. John Van Etta's "Viewpoint" column, page 34.

MEDIA WATCH

**6** **Coverup: Philip Morris Tries to Polish Its Image** ..... Charles R. Meyer, M.D.
*The Philip Morris tobacco company needs more than an image make-over to convince the public it's a good corporate citizen.*

FACE TO FACE

**8** **Rapid Fire** ..... Anne Welsbacher
*Tobacco expert Richard Hurt, M.D., combats smoking with powerful facts he keeps at the ready.*

PERSPECTIVES

**10** **It Takes Two** ..... Mary Braun
*The twin-snake caduceus may not be historically accurate, but for this medical student it does the best job of portraying what is essential to good medicine: Knowledge and Wisdom.*

ON THE COVER: MEDICINE & THE ARTS

**12** **Seduced by Smoke** ..... Jon Hallberg, M.D.
*Let's face it, smoking is a treasured part of our cultural memory. We love those alluring, smoke-filled images—Bogart, Bacall, Billie Holiday. Unfortunately, image and attitude still entice young smokers.*

FEATURE STORIES

**18** **Fighting Smoke with Fire** ..... Miriam Karmel Feldman
*Kids will help craft Minnesota's antitobacco advertising campaign.*

**24** **Logging On to 'Liquid Gold'** ..... Kim Palmer
*Michael Osterholm has launched a private venture,* ican, INC., *to put the latest infectious disease information at physicians' fingertips.*

PUBLIC HEALTH REPORT

**29** **Where There's Smoke, There's Disease: The Dangers of Environmental Tobacco Smoke** ..... David Jones, M.S., Barry Dunayer, Christina Thill, and Laura Oatman, M.S.
*Secondhand smoke is a serious threat to human health. It is especially harmful to children. Here's how to reduce exposure.*

SPECIAL REPORT

**43** **Health Care Taxes in Minnesota: An Analysis** ..... The Minnesota Taxpayers Association
*A report by the Minnesota Taxpayers Association proposes repeal of the state's health care taxes.*

JUST WRITE

**64** **Sentence Variety: The Long and Short of It** ..... James Kaufmann, Ph.D.

# On the Road to Wisdom

A life in medicine is like a roundless wrestling match with your mind. From the first inklings of the incipient premed student to the passing grade of the newly certified specialist, doctors get body slammed daily by the weight of medical knowledge and restrained by the limitations of brains and time. It's worse than a fall with Jesse and The Hulk. How physicians deal with this challenge is what makes them special ... and fallible.



*"Determining the hidden agenda behind a patient's visit is a judgment that resists pat algorithms and protocols."*

The road to medicine is paved with #2 pencils. Like it or not, success in high school, college, and medical school is driven by superior test taking. Having emerged as winners of this educational contest, physicians epitomize the elite meritocracy described by Nicholas Lemann in "The Big Test: The History of the American Meritocracy," his recent book on standardized testing. The skills that are rewarded in secondary schools and colleges include memorization, mathematical logic, and scientific conceptualization. The survivors of this high school and college gauntlet are well suited to handle the mass of information that lands on them as they enter their first year of medical school.

So in a conversation with first-week, first-year medical school students, you might expect to find a collection of cocky, intellectual hotshots who have aced college and are ready to conquer the medical school curriculum. Instead, these students often convey a sense of awe and trepidation—awe at the privilege of entering a worthy profession and trepidation at what medical student Mary Braun calls the "need to simply (and swiftly) swallow and absorb mounds of information" (see Perspectives, page 10).

My recollection of first-year medical school is aching—aching arms from the anvils called textbooks, aching eyes from nonstop study and odoriferous formaldehyde, aching head from polysyllabic words and concepts, and aching gluteus from eight hours of daily lecture. It was a nine-month fact-cram designed to challenge even Olympian test jockeys.

As the trip progresses, facts coalesce into concepts, which meld into knowledge, which is then supposed to be ready for application to patients in the clinical years of medical school and postgraduate training. Here's where the rewarded skills of the preceding years of education may fall short. Certainly diligence and mental toughness are important. Certainly facts must be remembered. But there's more. Because physicians deal first with people, they need patience and interpersonal aptitude. They need to remember not just the 50 causes of jaundice but also patients' names. They need to study people with the same tenacity with which they tackled gross anatomy. They need to know that people are more challenging than cranial nerves. Medical knowledge + interest in people + empathy + judgment = wisdom.

Wisdom is a word that has bedeviled and befuddled humans since they started using words. It's cultivated by sound problem solving and logical decision making. Perhaps the biggest brain tussler for physicians is the medical judgment part of the equation. Forgotten facts are as close as the nearest textbook or Web site, such as Michael Osterholm's ican (see the feature story, page 24). But determining the hidden agenda behind a patient's visit, or deciding whether to discuss DNR/DNI with a dying patient, or whether to tell a patient with fever to go to the ER are judgments that resist pat algorithms and memorized protocols. They are the art of medicine.

One of the joys—and one of the burdens—of medicine is the perpetual intellectual challenge. As medical science changes, our cerebral software needs upgrades more frequently than Microsoft's. The people part of our brain needs renovation too. It's a daily bout of figuring out how to help the other person in the exam room. And it's the road to wisdom.

*–Charles R. Meyer, M.D., Editor-in-Chief*

# It's illegal for Medicare to treat Minnesota seniors fairly.

All seniors have contributed equally to Medicare.

So how come Medicare gives some seniors in Florida free membership in a health club? How come Medicare gives some Florida seniors free prescriptions, free eyeglasses and even free rides to the doctor? How come seniors here in Minnesota might pay as much as $1,000 more a month in premiums than seniors in other states, like California or New York?

It's the way the Medicare laws are written. If you think that's unfair, you're not alone. That's why we're working aggressively right now to help change things in court.

It's crucial to ensure that Medicare recipients receive equal benefits. Just as it's crucial to keep improving the health care system on all fronts so it works better for everyone.

We believe the answer lies in one simple question.

It's a question that can quickly bring focus to the debate. It can establish common ground. And be an invaluable guide in designing effective new proposals, be they local, corporate or national.

Conclusion? Whenever health care is the issue, this should be the only real question: Is it good medicine?

MMA
MINNESOTA MEDICAL ASSOCIATION
MEDICINE'S VOICE IN MINNESOTA

American Medical Association
Physicians dedicated to the health of America

Find out what physicians of the AMA have to say on issues important to you and your doctor at www.ama-assn.org/grassroots

# *Minnesota Medicine*

Published monthly by the Minnesota Medical Association

*Owner and Publisher*
Minnesota Medical Association

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Managing Editor*
Meredith McNab

*Associate Editors*
Margaret Parker
Carmen Peota

*Publications Assistant*
Katie Leonard

*MMA News & Views Editor*
Lorrie Holmgren

*MMA News & Views Writer*
Cynthia Lehman

*Art Director*
Sarah Kirkwood

*Graphic Designers*
Sarah Kirkwood
Katie Leonard

Send manuscripts, subscriptions, and other material for consideration to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/378-1875. E-mail: mm@mnmed.org The editors reserve the right to reject editorial, scientific, or advertising material submitted for publication in *Minnesota Medicine*. The views expressed in this journal do not necessarily represent those of the Minnesota Medical Association, its editors, or any of its constituents. Annual subscription–$40. Single copies–$3.50. Canadian–$70. Foreign–$70.

*To Advertise:* Contact Michele Holzwarth, *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/623-2880 or 800/DIAL MMA (342-5662).



**Advisory Committee**

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Advisory Committee*
Charles R. Meyer, M.D.
Edmund C. Burke, M.D.
Richard C. Lussky, M.D.
Lynne Ogawa, M.D.
Paul S. Sanders, M.D.
Leif I. Solberg, M.D.
Barbara P. Yawn, M.D.
Meredith McNab, staff

*Editors Emeritus*
Edmund C. Burke, M.D. 1991-1993
Richard L. Reece, M.D. 1975-1990
Reuben Berman, M.D. 1971-1974
Carl O. Rice, M.D. 1961-1970



**Copyright & Post Office Entry**

*Minnesota Medicine* (ISSN 0026-556X) is published on the fifth of each month by the Minnesota Medical Association, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761, copyright 2000. Permission to reproduce editorial material in this magazine must be obtained from *Minnesota Medicine.* Periodicals postage paid at Minneapolis, Minnesota, and at additional mailing offices. POSTMASTER, send address changes to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761. (USPS 3519000.)



MINNESOTA MEDICAL ASSOCIATION

**1999–2000 Officers**

*President*
John M. Van Etta, M.D.

*President-Elect*
Blanton Bessinger, M.D.

*Chair, Board of Trustees*
Robert K. Meiches, M.D.

*Vice President*
Kevin C. Fleming, M.D.

*Secretary*
David L. Estrin, M.D.

*Treasurer*
Noel R. Peterson, M.D.

*Speaker of the House*
Gary D. Hanovich, M.D.

*Vice Speaker of the House*
Rebecca Jean Hafner, M.D.

*Past President*
Judith F. Shank, M.D.

*Chief Executive Officer*
Paul S. Sanders, M.D.

**MMA Senior Staff**

*Director of Communications*
Lorrie Holmgren

*Chief Financial Officer*
George C. Lohmer Jr.

*Director of State and Federal Legislation*
David Renner

*Director of Health Law*
Christina F. Rich, J.D.

*Director of Health Economics and Policy Analysis*
Janet Silversmith

*Director of Executive Office*
Karen A. Tourdot

**Alliance**

*President*
Sandra Weissler

*President-Elect*
Diane Gayes

**Board of Trustees**

*N.W. District*
Jerry P. Rogers, M.D.

*N.E. District*
James L. Anderson, M.D.
Charles R. Helleloid, M.D.

*N. Central District*
James J. Dehen Jr., M.D.
Keith D. Larson, M.D.

*West Metro*
Lee Beecher, M.D.
Karen K. Dickson, M.D.
John W. Larsen, M.D.
Robert K. Meiches, M.D.
Henry T. Smith, M.D.

*East Metro*
Thomas Dunkel, M.D.
Joseph L. Rigatuso, M.D.

*S.W. District*
Terence P. Cahill, M.D.
Elton G. Wing, M.D.

*S.E. District*
Peter Amadio, M.D.
G. Richard Geier Jr., M.D.
Kimberly McKeon, M.D.

*Resident Member*
Andrew G. Moore, M.D.

*Medical Student*
Joel V. Oberstar

**AMA**

*AMA Delegates*
Robert D. Christensen, M.D.
Frank J. Indihar, M.D.
Carolyn J. McKay, M.D.
Lyle Munneke, M.D.
Audrey M. Nelson, M.D., *Chair*
Thomas L. Peyla, M.D.
Andrew J.K. Smith, M.D.

*AMA Alternates*
Raymond G. Christensen, M.D.
Kenneth W. Crabb, M.D.
Anthony C. Jaspers, M.D.
Paul C. Matson, M.D.
Sally Trippel, M.D.
John M. Van Etta, M.D.
Benjamin H. Whitten, M.D.



**MMA Address**

Minnesota Medical Association
3433 Broadway Street NE, Suite 300
Minneapolis, MN 55413-1761
Phone: 612/378-1875 or 800 DIAL MMA (342-5662)
Fax: 612/378-3875
E-mail: mma@mnmed.org
Web site: www.mnmed.org

ADVANCED IMAGING MRI

# A clear image of the future.

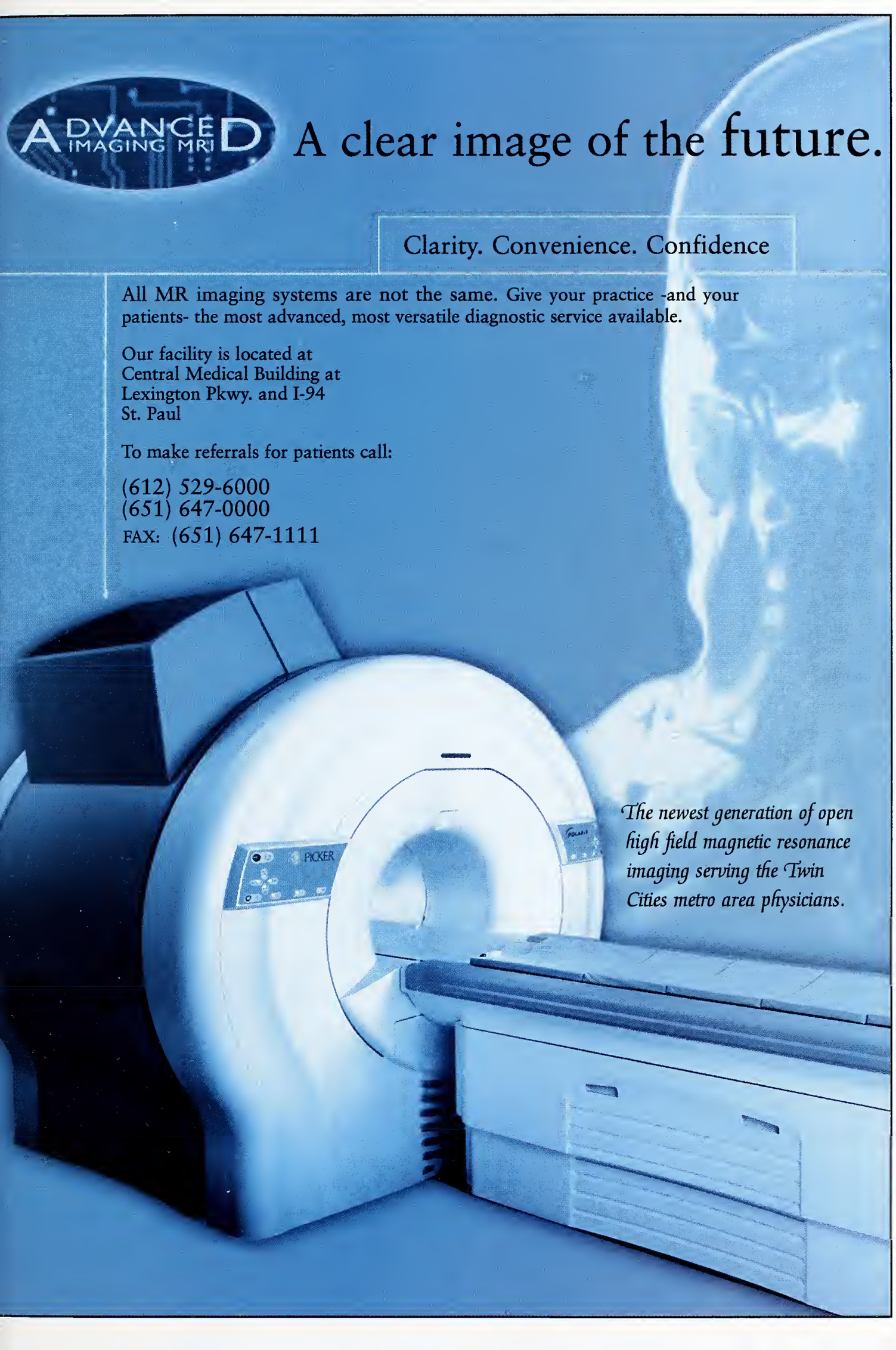
## Clarity. Convenience. Confidence

All MR imaging systems are not the same. Give your practice -and your patients- the most advanced, most versatile diagnostic service available.

Our facility is located at
Central Medical Building at
Lexington Pkwy. and I-94
St. Paul

To make referrals for patients call:

(612) 529-6000
(651) 647-0000
FAX: (651) 647-1111




*The newest generation of open high field magnetic resonance imaging serving the Twin Cities metro area physicians.*




# Coverup

## Philip Morris Tries to Polish Its Image

The Philip Morris Companies Inc. is a lot like Richard Nixon. In August 1974, when Nixon took his final ride on the presidential helicopter, he had suffered a defeat worse than any electoral loss. Caught deceiving the public and accused of prosecutable crimes, Nixon faced political ruin; his reputation was decimated. But over the next two decades, through writing, speaking, and "statesmanship," Nixon rebuilt it.

Philip Morris, as well as other tobacco companies, also has boarded its helicopter after a series of adverse judgments. In April 1996, President Clinton announced regulations restricting tobacco advertising and clamping down on tobacco sales to minors. In September 1998, Blue Cross and Blue Shield of Minnesota and the Minnesota Attorney General's Office reached a multibillion-dollar settlement with the tobacco industry. In November 1998, the tobacco companies were on the short end of a $200 billion settlement with multiple states that restricted their advertising and designated future funds for treating health consequences of smoking. In recent months, full-page ads boldly demanding "Philip Morris Must Change" and signed by 20 health and education associations have reviled the tobacco marketer for continuing its deceptive advertising and skirting the sense of the settlements.

Like Nixon after Watergate, Philip Morris has not gone into hiding. It, too, has turned to statesmanship. The company's PR department has generated "high road" ads that emphasize the company's public spirit, concern for consumer safety, and obedience to the law. One such ad shows a grandfatherly convenience store clerk agonizing over saying no to minors who are trying to buy cigarettes. After the beneficent tobacco company supplies a sign that says, "We do not sell cigarettes to minors," the clerk's onerous task is eased and the underage kids turn from the counter without protest.

Another PM ad shows an attractive woman, pregnant in the first scenes, then playing with a small child. In a voice-over, she recalls her husband's violence during her pregnancy and her decision to find refuge in a battered women's shelter. The final scene shows the mother and child playing on a pristine beach as the Philip Morris name appears, along with a description of the company's generous support for programs against domestic violence.

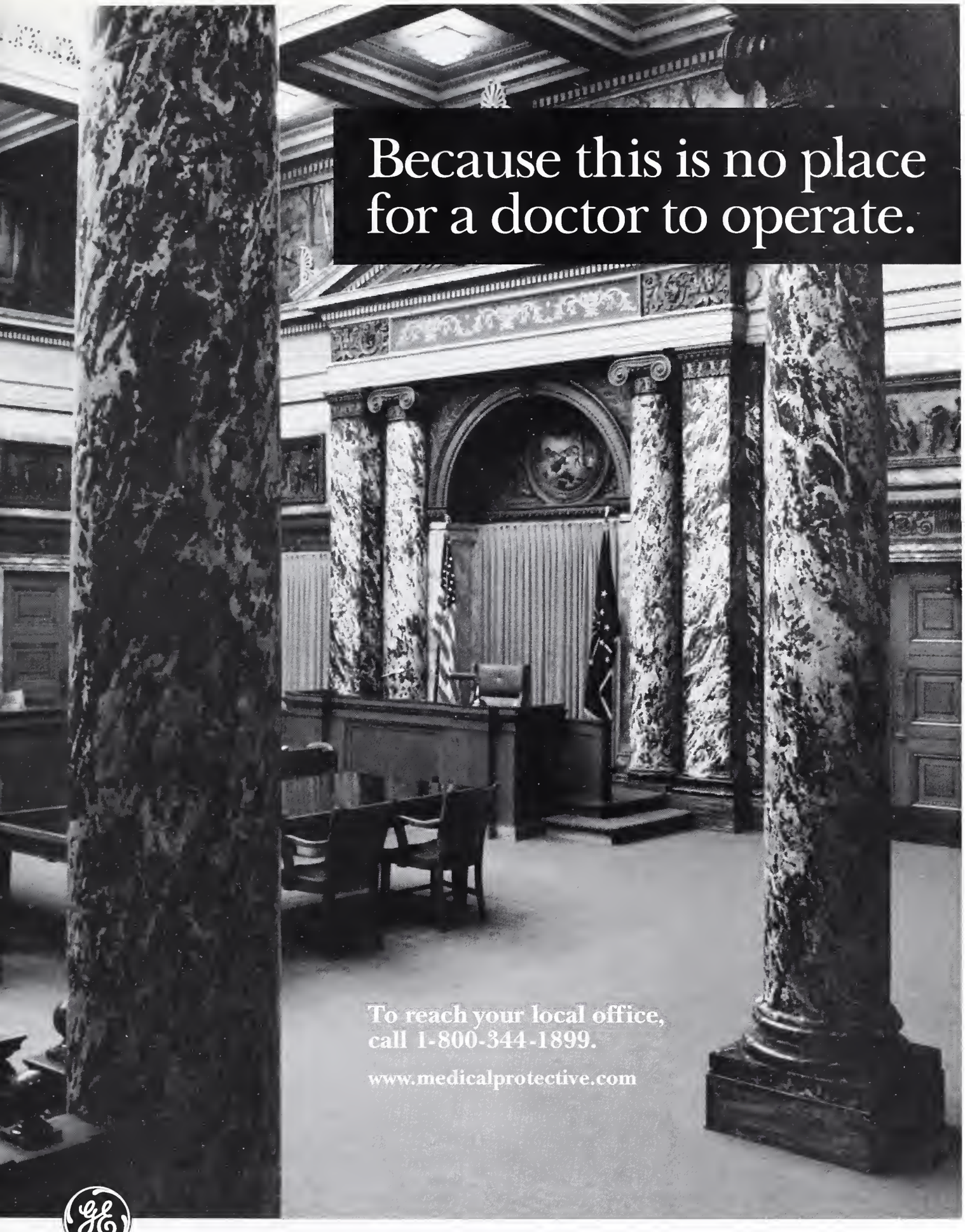
If ever an industry needed image enhancement, it's the tobacco industry. Courtroom revelations in recent years have exposed an industry that knew cigarettes were dangerous and lied to the public about it. In lawsuits condemning the lethal weed and its makers, lawyers have described case after case of former smokers now dead or dying of cancer. Clearly, Philip Morris is seeking redemption in the eyes of the public. The company's current campaign places it squarely on the side of abused women and against underage smoking. The public relations cosmeticians hope we will forget the Marlboro-carcinogen connection and equate Philip Morris with good corporate citizenship.

At his funeral, Nixon was eulogized as a wise and visionary statesman. Although he and Watergate will be eternally wedded in history, Nixon kept Watergate from becoming his main epitaph by rarely addressing the allegations of lies and deception. Instead, he took the "high road," documenting his unparalleled political experience and articulating his vision of the world.

The tobacco companies' "Nixon" strategy may not be as successful as Tricky Dick's, however. The sins of Watergate—and all the president's men—have receded into historical haze. But the players in the tobacco story remain with us. For new tobacco victims are created every day.

. . . . . .

*–Charles R. Meyer, M.D., Editor-in-Chief*




***The Medical Protective Company®***

# RAPID FIRE

**Tobacco expert Richard Hurt, M.D., combats smoking with powerful facts he keeps at the ready.**

By Anne Welsbacher

Talking to Richard Hurt, M.D., is like reading a *New Yorker* article. Whatever the topic, two sentences in, you're hooked. In Hurt's case, the topic is tobacco—and its historical, chemical, socioeconomic, geographic, mathematical, and personal implications. An expert on all things tobacco, Hurt testified in Minnesota's 1998 landmark trial that ended when tobacco companies agreed to pay the state a settlement of more than $6 billion. A *Law &Politics* article noted that "for the defense, Hurt was a nightmare ... by the end of Hurt's cross-examination, [the lead defense attorney] was toast." Hurt concedes, "It was the experience of a lifetime."

Hurt testified on nicotine addiction, low-tar cigarettes, and pH manipulation in the trial. His expertise was nicotine addiction, but he became an expert on much more as he read industry documents in preparation for the trial. "I knew the tobacco companies were highly manipulative, that they were not nice people," he says. "But they were worse than all that. When reading, I'd think to myself that these are really dirty rotten SOBs!"

Hurt, director of the Nicotine Dependence Center at the Mayo Clinic in Rochester, Minnesota, is taking his efforts against tobacco from the courtroom and clinic to the public. As chair of the board for the Minnesota Partnership for Action Against Tobacco (MPAAT), which was created and funded as a result of the settlement, Hurt will be heading a statewide effort to reduce tobacco use in Minnesota to less than 10 percent by 2023.

"Last year we put together the infrastructure—it was a big job. Now our staff is up and running." MPAAT will focus its efforts on a broad-based social environmental approach. "We know from California that you need grassroots to change perceptions of smoking," says Hurt. So MPAAT will offer grants to fuel grassroots projects such as intervention programs, a telephone quit-line, and efforts to reduce exposure to environmental tobacco smoke.

Hurt's knowledge of nicotine addiction is personal as well as professional. He began smoking in college—late for a man from Kentucky—and soon was smoking three packs a day. An internist, Hurt received his B.A. from Murray State University in 1966 and his M.D. from the University of Louisville in 1970. In 1975, he was a resident on a rotation at Rochester Methodist Hospital when his wife called and told him she'd signed up both of them for a stop-smoking program. Although he'd tried to quit before, this program took hold. "I quit on November 22, 1975, at 3:30 p.m.," he says. Hurt became a group leader, counseling other smokers trying to quit. The program grew and in 1988 officially became the Nicotine Dependence Center, with Hurt as its medical director.

The center, which offered one of the first programs in the country designed exclusively for those dependent on tobacco, has treated more than 19,000 patients since 1988. The program runs the gamut of drug addiction treatments: group therapy, exercise, behavioral counseling, medication, the 12-step recovery model applied to smoking, and relapse prevention. "Ours is the single biggest program [in the country]," Hurt says with pride that gives way to characteristic modesty. Although the tobacco trial attorneys had their pick of anyone in the country, "I think the reason they picked me was this place," he says. He praises Mayo lavishly for its willingness to allow him to testify. And he's quick to note the trial's heroes—the attorney general, "the only one of all 50 who was preparing for a trial, not a settlement"; the attorneys for the state, who "did something nobody thought was possible"; and the judge, "one of the most decent and courageous human beings on the planet."




PHOTOGRAPH BY JOE KANE/MAYO CLINIC

Hurt is reticent about his own contribution to the trial, but his passions are evident in his articulate discourse on smoking in America. "In a 1912 article, lung cancer was cited as among the rarest forms of cancers," he says. "Prior to 1900, fewer than 200 cases were ever recorded in the entire history of medicine! My great-great grandparents didn't have to contend with cigarettes, because they were not part of their culture." Suggest that Native Americans used tobacco for hundreds of years before Europeans showed up, and he'll nod and agree that tobacco has long been a part of Western history. But he'll knock your argument by noting that Native Americans used tobacco in different ways and at much lower rates. Then he'll add that the practice of spitting tobacco in the early 1900s was on the wane because it was thought to have contributed to that era's catastrophic spread of tuberculosis, which it did not.

His command of the facts is, one suspects, what "toasted" the trial's hapless tobacco lawyers. Hurt's manner is warm, courteous, and humorous. But the facts at his fingertips sting. He notes how asbestos was used in early cigarette filters that were developed in response to growing concerns about lung cancer. The industry enthusiastically referred to them as "health reassurance" products. He explains how the industry developed cigarettes that "fooled" smoke-testing devices. Tiny ventilation holes near the filter allowed air to dilute inhaled smoke, so the low-tar cigarettes tested "safer." Most smokers are not aware of the holes and many unwittingly cover the holes with their fingers, rendering the ventilation holes useless. "The cynicism of this!" Hurt says. "The deception that continues even today is unfathomable."

The fact that most appalls him is one he learned in the course of his trial preparations: The industry added ammonia to tobacco to increase its pH, thus allowing more rapid absorption of nicotine. "The tobacco industry was freebasing nicotine," he says, "before the drug culture."

During the trial, Hurt dissected cigarettes and displayed slides of cigarette papers to illustrate how cigarettes were designed. "They didn't just take tobacco leaves that have hung in a barn and shred them to make cigarettes," he says. "It's a highly sophisticated process. They can add just about anything they want to the tobacco with virtually no regulation."

For Hurt, the toughest part of testifying was the deposition, at which there were, in addition to Hurt, a court reporter, about a dozen tobacco lawyers, two state attorneys, and his attorney. "Their [the tobacco lawyers'] goal was to destroy my expert report; my goal was to keep points. Since there was no judge, they'd periodically have a food fight. One guy's role was to unsettle me; he'd sit and stare at me. He wouldn't even blink." Hurt responded by staring back. "The deposition was the hardest," he says. "The trial was fun."

Settlement funds were divided among the state's Department of Health, Blue Cross and Blue Shield of Minnesota, and MPAAT. The Department of Health will focus on kids and prevention (see related story, page 18). Blue Cross will offer treatment services for subscribers. And MPAAT will help "fill in the gaps," targeting the under- and uninsured and disadvantaged groups, "especially Latinos and African Americans, who have been targeted by the industry," says Hurt. MPAAT's $202 million will be distributed over 25 years.

"By the time an average American child is a teenager, he or she will have seen $20 million worth of advertising and marketing promoting tobacco," Hurt noted in a *Star Tribune* commentary. "The tobacco industry spends $90 million in our state alone promoting their products," he says. "So what we're spending is a drop in the bucket." MM

*Anne Welsbacher is a freelance writer and playwright living in Minneapolis.*

# It Takes Two



ILLUSTRATION BY SIS/PAUL ANDERSON

*The twin-snake caduceus may not be historically accurate, but for this medical student, it does the best job of portraying what is essential to good medicine:* ***Knowledge and Wisdom.***

**By Mary Braun**

My first term of medical school can be summed up in one word: tension. I found myself torn between the practical need to simply (and swiftly) swallow and absorb mounds of information, and a personal desire to savor and carefully digest each new bit of Knowledge. I craved the time to slowly saturate myself with new concepts. But medical students don't have that luxury. With so much to learn in so little time, I grimaced and force-fed myself facts.

So when winter break came, there I sat, angry, frustrated, and depressed. I had planned to learn something about menopause over vacation but soon abandoned myself to novels. I was in the middle of Robertson Davies' "The Cunning Man" when my escape from medical school was interrupted by a description of the origin of the caduceus:

"Once when Hermes walked abroad he came on two snakes fighting furiously. To make peace and establish balance, or reconciliation or whatever, he thrust his staff between the snakes and they crawled up it, still hissing, but this time in concord, and they have remained twined about the staff of the healer to this day. And what are the snakes? You could call them Knowledge and Wisdom ... they are not the same, because Knowledge is what you are taught, but Wisdom is what you bring to it."

> *"Knowledge and Wisdom ... they are not the same, because Knowledge is what you are taught, but Wisdom is what you bring to it."*

I was stunned. This conflict between Wisdom and Knowledge seemed exactly like my struggle in medical school, a struggle to learn the curriculum (Knowledge) without losing sight of my experiences, personality, and interests (Wisdom). I felt relieved, knowing that this struggle was not unique to me but, rather, a conflict at the heart of medicine—so much so that it was made part of medicine's very symbol, the caduceus.

The caduceus became the symbol of medicine early in this century when it was mistakenly incorporated into the U.S. Army Medical Corps symbol. The historically correct symbol of medicine is the staff of Aesculapius, the god of healing. His staff is entwined by only one snake. But this image has never taken hold in the public imagination the way the caduceus has.

The two climbing snakes of the caduceus are locked in a permanent stasis, equally strong, equally tenacious, and equally important. Their equivalence, even interdependence, echoes two recurrent themes of medical school: (1) Medical students need to learn basic science and (2) medical students need more than Knowledge to become good doctors. Our upperclassmates assure us that when we see real patients, we'll need to understand the arcania that make up our curriculum. But our clinical medicine professors tell us that the information needed to make a neurological diagnosis, for example, can be found in comparing a patient's movements with our lifelong observation of the ways in which people move.

Distinguishing between the snakes in the daily practice of medicine is not always easy. One afternoon I observed as my preceptor saw two 50-year-old male patients with diabetes, one right after the other. He asked of both, "Tell me about how you've been eating." Upon hearing their two different answers, he responded with two different strategies: One patient got a talk about reducing stress while the other got a referral to the clinic nutritionist. I couldn't tell whether it was Wisdom or Knowledge that was informing my preceptor's actions, or both. Physicians may discourage a patient from a particular treatment because (1) they have read in a journal that it is not very effective, (2) the patient's situation reminds them of an instance when that treatment was not effective, or (3) some combination of the two. In "The Wisdom of the Body," physician-author Sherwin Nuland says, "In clinical medicine, the observer—the clinician—uses himself and his distinctive experience of life as the lens through which everything is to be seen, the mirror in which all is reflected."

Knowledge and Wisdom can thus look the same, or at least complementary, to an experienced clinician, but they appeared uncomfortably different to me last term. In the early part of our training, our Wisdom and Knowledge are academic; they have nothing to do but fight. It is only when we begin caring for patients that our Wisdom and Knowledge have a common goal. Wisdom and Knowledge were fighting before Hermes came along. I imagine them struggling for ascendancy in the student-doctor's mind until Hermes puts the staff down for them to climb up, in concert yet still separate. Patients are like the staff, the physician's Knowledge and Wisdom gently encircle the patient, and Hermes, the arbiter of maturity, thrusts patients into a student's care when he deems the student-doctor ready.

These days, the Knowledge/Wisdom conflict is particularly evident among those working in managed care. Many of our lecturers tell us about occasions when they wanted to give a patient a certain test or procedure but could not because the patient did not meet the HMO's criteria. We all understand that the old model allowing the indiscriminate ordering of tests and procedures was wasteful and potentially harmful to the patient, but these doctors, at least, are concerned that Wisdom is being banished from medical practice. They tell us that the medical profession has, at its base, the human relationship, in which the doctor's Wisdom about the patient's situation is what should determine the course of action, not a list of criteria that only consider measurable facts.

Perhaps this is why the one-snake symbol has not caught on. We all know that good medicine needs both Wisdom and Knowledge. Removing one snake or the other from the caduceus would result in a historically accurate symbol, but one that fails to acknowledge both the art and science of medicine. MM

*Mary Braun is a third-year medical student at the University of Minnesota.*




ILLUSTRATION BY SUSAN SANFORD

# Seduced by Smoke

*Let's face it, smoking is a treasured part of our cultural memory. We love those alluring, smoke-filled images—Bogart, Bacall, Billie Holiday. Unfortunately, image and attitude still entice new smokers.*

*Jon Hallberg, M.D.*

Finally, not smoking is cool. Tobacco-settlement fever has hit the country and billions of dollars have landed in state coffers. TV, radio, and now billboard advertising has been banned. Preschoolers don't recognize Joe Camel. And the story of a tobacco industry whistle-blower has become an award-winning feature film. We seem to be on the verge of extinguishing this deadly habit.

But look around. Smoking is still hot. Evidence of tobacco's continued popularity is everywhere. It's in magazines. It's on college campuses in ever-increasing numbers. It's on screen, in recent films such as "Holy Smoke," "200 Cigarettes," and "Light It Up"—titles that appeal to a certain rebellious spirit. So it should come as no surprise that smoking is catching fire in the young Abercrombie & Fitch crowd at a time when tattooing, body piercing, and bungee-jumping are all the rage—when "attitude" rules.

After all, smoking's appeal has always been about image. Smoking has long been celebrated in song and art and film—especially film. The image of the habit we so loudly condemn has become an indelible part of our cultural memory. From rebel James Dean to screen siren Lauren Bacall to jazz great Miles Davis, we actually cherish some of those smoke-filled images.

Some of the greatest figures in politics, science, literature, art, sports, and comedy are inextricably bound to tobacco use. Obvious examples include Sir Walter Raleigh, Ulysses S. Grant, F.D.R., General Douglas MacArthur, Winston Churchill, Joseph Stalin, Sigmund Freud, J. Robert Oppenheimer, *Time* magazine's "Man of the Century" Albert Einstein, Oscar Wilde, Mark Twain, Picasso, Babe Ruth, Groucho Marx, George Burns, Johnny Carson, Bill Cosby, and David Letterman (whose recent emergent quintuple bypass was attributed to high cholesterol and a family history of heart disease). Try to picture any one of these men without his cigarette, pipe, or cigar. The image wouldn't be complete. These accessories connote

***Smoking's appeal has always been about image. Smoking has long been celebrated in song and art and film—especially film. The image of the habit we so loudly condemn has become an indelible part of our cultural memory.***



confidence, a certain brashness, an undeniable greatness.

Of course, smoking is also associated with those on the edge of society: the mentally ill, the alcoholic, the heroin addict, the mob boss, the prostitute, the homeless person. One would think this negative association would be a disincentive to smoke, but the opposite seems true. Being on the fringe seems to be a status that many adolescents are trying to attain, through their clothes, their attitudes, and their smoking. Perhaps part of smoking's great allure is that its images offer something for everyone. Smokers as nervous wrecks, rebels, criminals, spies, resistance leaders, condemned men, glamorous women, drug addicts, titans of industry—they are all represented in the popular culture we share.

## Musical Allusions

Although it's impossible to sing or play a wind instrument while smoking, music is full of images of—and tributes to—smoking. One of the most beautiful paeans to smoking can be found in Georges Bizet's 1875 opera, "Carmen." Carmen is a fiery gypsy cigarette-girl, on whom all eyes are focused. She is independent, mysterious, tough, and sexy. Early in the first act, soldiers guard a cigarette factory and anxiously await the arrival of Carmen and the other "dark-haired cigarette-girls" after a day's work. The girls enter with "impudent glances, flirtatious looks, each smoking a cigarette from between her teeth," singing:

*We follow with our eyes*
*the smoke in the air*
*which rises, scented,*
*towards the sky.*
*Pleasantly it rises*
*to your head*
*and gently*
*fills your soul with joy.*
*The sweet talk of lovers,*
*this is but smoke;*
*their raptures and their vows—*
*that, too, is smoke.*

It is hard to imagine the great figures in jazz, a musical form whose energy, spontaneity, and creativity seem to reflect our country's best qualities, without smoke in the background—or the foreground. It's as if smoke itself were integral to their creative spirit. Captured in glorious black and white photographs are the likes of Louis Armstrong, Dexter Gordon, Chet Baker,



Charlie Parker, Dizzy Gillespie, Miles Davis, Sarah Vaughan, Gerry Mulligan, Billie Holiday. And somewhere in all these photographs is smoke, swirling in wisps around the horns, the microphones, the musicians, as though in rhythm, conveying an air of mystery and subversiveness. Our eyes almost sting. We feel the heat, the sweat. The smoke, like the music, appears to improvise and, like the music, is gone in an instant.

Smoking, the vice, the habit, the joy, lends itself well to song. One of the first to write about it was Johann Sebastian Bach, in his "Erbauchie Gedanken eines Tobackrauchers" (Edifying Thoughts of a Tobacco Smoker). Contemporary tunesmiths have followed Bach's early lead. Smoking transcends musical genre and has been the subject of song in folk music, blues, country, and rock. Tex Williams recorded one such song in 1947 entitled, "Smoke! Smoke! Smoke that Cigarette!" Here is an excerpt:

*Smoke, smoke, smoke that cigarette.*
*Puff, puff, puff it but if you smoke yourself to death,*
*Tell St. Peter at the Golden Gate*
*That you hates to make him wait*
*But you gotta have another cigarette.*

Perhaps it is the struggle in so many musicians' lives—the anxiety, sleeplessness, endless hours on the road, strange hotels, and loneliness—that makes smoking such a popular subject. Cigarettes (and alcohol and other drugs) are often the only constant, reassuring companions, as the Beatles suggested in their slow, almost slurred, 1968 song "I'm So Tired":

*I'm so tired, I haven't slept a wink*
*I'm so tired, my mind is on the blink*
*I wonder should I get up and fix myself a drink*
*No, no, no.*
*I'm so tired, I'm feeling so upset*
*Although I'm so tired I'll have another cigarette*
*And I'll curse Sir Walter Raleigh*
*He was such a stupid get.*

In 1997, the singer k.d. lang recorded an entire album of smoke-related covers entitled, "Drag." The album's title and various songs provide wonderful double entendres and metaphors for everything from relationships to sexual orientation. Lang, a nonsmoker, plays with the word "drag," alternately donning the persona of a lounge lizard or torch singer for such songs as "Don't Smoke in Bed," "Smoke Dreams," "My Last Cigarette," "My Old Addiction," "Smoke Rings," and "Love is Like a Cigarette." Lang compares relationships, love, and life to the pleasures of a cigarette: tenuous, fleeting, just beyond our grasp.

## The Golden Years in Film

When we consider films and smoking, the challenge is to find a film in which there is none. According to "Great Exhalations," a 1998 article in *Entertainment Weekly*, a University of California survey found that 80 percent of films made between 1991 and 1996 showed male leads smoking. Of course, the characters being portrayed on the screen are not ordinary. "Normal" folks aren't very interesting material. Films, therefore, are trying to tell us something about the characters. But what? To answer this, we need to look at the "golden years" of smoking in pictures, the 1940s.

Pick any film shot during that decade. Even the mediocre ones have a certain look that speaks of that era; they look great. Most are in black and white and are predominantly studio films; that is, they weren't shot on location. Rather, they were created, shot by shot, in studio back lots and sound stages the size of airplane hangars, where every aspect of the film could be controlled. The sets look sumptuous, belying the economic hardships this country faced early in that decade. But look closer. The sets are often quite simple. The buildings are just plywood fronts. The vegetation isn't real. Special effects are virtually nonexistent. So why do these films look so good? Great faces. Stunning clothing. Elegant gestures. Shadow. Light. Posture. Attitude. And stars who are larger than life. Especially the stars. Place a cigarette in their hand and the result is striking. (A producer reportedly once said that the cigarette is the movies' single best prop.) The cigarette adds a certain sophistication and sexiness. Smoke, like fog, also masks cheap sets, blurring crude lines.

Many movie stars of the 1940s, particularly the women, frequently posed with a cigarette in their hand or on their lips: Rita Hayworth, Greta Garbo, Bette Davis, Marlena Deitrich, Carole Lombard, Jean Harlow, Tallulah Bankhead, Claudette Colbert, and Lauren Bacall. As with the jazz photos, it is hard to deny the



sheer beauty of smoke in these black and white photographs. The curls, the tendrils, the shapeliness of the smoke seem to mirror the curves of the stars. These women were poised, confident, elegant. They smoke as though it were an art. The stars, the proper mood and look, and the requisite smoke seem to work a certain cinematic magic in a few "great" smoking films such as "Roberta," "Now, Voyager," and "To Have or Have Not." Perhaps nowhere else did all this come together more beautifully, more convincingly, than in "Casablanca."

Filmed in 1942, "Casablanca" is the consummate smoking film. From the start, smoking permeates the film. Rick's Cafe American, equal parts saloon, casino, and night club, is really an elegant, sprawling ashtray. Hookahs, cigars, and cigarettes are present in every scene. Smoke doesn't just rise, it billows. It seems appropriate, then, that when we first meet Richard Blaine ("Rick"), played by Humphrey Bogart, we see not his face, but his fingers holding a cigarette, flicking its ashes assuredly. The camera follows his hand as it rises to his lips. He takes a long, deep drag, wincing as though downing a shot of whiskey. The camera pulls away and we finally see him in full view. His white dinner jacket and black bow tie are impeccable, his shoes polished, his hair slicked back, not a strand out of place. He is the prototype of the Hollywood smoker. He exudes toughness, sophistication, savvy. Without a single word uttered we know that he is in control.

In the course of "Casablanca," Bogart will smoke 13 cigarettes. The cigarette, much like the film's soundtrack, punctuates certain moods and settings. During a solitary, alcohol-soaked moment Bogart smokes, remembering a relationship that has, like smoke, disappeared into thin air. In Paris, he smokes as he pours champagne during better times, times of romance and love. "Here's looking at you, kid," he says, cigarette tremulously poised on the edge of his lip. And finally, in camaraderie, with Louis, the Chief of Police, he smokes just after he shoots Major Strasse dead. As Bogart and his cigarette disappear into the fog, he utters the memorable line, "Louis, I think this is the beginning of a beautiful friendship."



## *Literature of the 'Sublime'*

Often smokers themselves, writers have, not surprisingly, immortalized their favorite addiction in print. In her book, "In Defense of Naps, Martinis, Profanity, and Other Indulgences," Barbara Holland writes about cigarettes and why smokers smoke:

> *Well, it's time someone explained. No, we weren't attempting suicide, or deliberately trying to stunt our unborn children or poison the bystanders. We did it because it was fun. It felt good. It felt good like scratching an itch, or stretching, or biting a grain of caviar, or having your back rubbed, or taking off tight shoes. There, I said it. Cigarettes tasted good.*

In his book, "Cigarettes are Sublime," Richard Klein sees smoking as a metaphor:

> *Smoking a cigarette may be compared to making a poem: inhaling the hot breath of inspiration, letting words on paper burn up in the visible air of a muted elocution, exhaling swirling figures of desire, conducting with gestures and modulating in smoke a lyric conversation overheard.*

And Richard Selzer, the Yale physician-writer, explains in his essay, "Smoking," what he finds so beautiful, so essential about the act:

> *... Aah ... and out it comes, now a slow-blown wisp, now a fat cloud. It rises above the face. That which was a moment before deep within pours to the out-of-doors, the soul come punctually visible. See it diffuse, coiling fainter and fainter into the general atmosphere. Here is proof—one needs no more—you exist, are here, because smoke, that gaseous testimony, is there.*

## *The Deadly Thrill of It All*

Smoking is, of course, a horrible habit. Tobacco causes more death

and disease in this country than any other single entity. Its addictiveness has been compared to that of heroin. These facts are known. So why—Why!?—do people do it? They do it for the same reason people drive too fast. For the same reason they jump out of airplanes or off bridges with little more than rubber bands attached to their ankles. People smoke for the thrill of it. They like the way it makes them feel. It sharpens their senses, calms their nerves, and decreases their appetites. And they become addicted to this readily available, openly marketed drug. And, sometimes, it kills them.

Can we snub out this deadly habit? Probably not. But we are making great strides. Only 23 percent of U.S. adults now smoke (down from an estimated high of 42 percent in 1966). We have a better understanding of nicotine's addictive powers. Zyban ads have replaced Marlboro ads on buses. Perhaps our best hope, though, is that as adolescents grow out of their rebelliousness, they will outgrow their taste for cigarettes and their taste for danger.

Decades after his tragic death, James Dean remains an icon of all that is cool. In a famous photograph, Dean is leaning against a wall with his hair in a ducktail, his black leather jacket unzipped, revealing a white T-shirt. His head is cocked to the side, his blue jeans rolled up. And, of course, there's a cigarette in his hand, held much like a switchblade. Dean is most famous for his role in "Rebel Without a Cause," a 1955 film both dated and timeless. It speaks of teens' strained relationships with parents and peers, the need to belong, to fit in. It speaks of courage and honor. In one telling scene, Dean has been challenged by a classmate, Buzz, to a "chickie run," a drag race in stolen cars toward the edge of a cliff. The first to jump out of his car is a chicken. Dean's Jim Stark character stands with Buzz at the edge of the cliff, the ocean crashing below.

*Buzz:* *That's the edge.*
*Stark:* *Yeah, it certainly is.*
*(He lights a cigarette.)*
*(Pause)*
*Why do we do this?*
*(Cigarette in hand, gesturing down.)*
*Buzz:* *Ya gotta do somethin'—don't ya?*

*Jon Hallberg is a nonsmoker and a physician at the Fairview Nicollet Mall Clinic.*

## Kids Get Mixed Messages

**Children are exposed to smoking through some of fiction's greatest creations. The messages they receive are decidedly mixed. On the one hand, smoking is clearly evil. As Pinocchio smokes his cigar and shoots pool with the boys, he turns green and his eyes water while he sprouts donkey ears and a tail—apt punishment for such a sin. Smoke swathes Cruella De Vil, the embodiment of nastiness, as she waves her cigarette holder about like a wand. Conversely, Popeye's pipe seems to symbolize strength of character and body, while Tom Sawyer's and Huck Finn's corncob pipes promise adventure. And let's not forget Santa Claus, whose pipe suggests kindness, wisdom, and gentleness.**



# Fighting Smoke with Fire

By Miriam Karmel Feldman

**Kids will help craft Minnesota's antitobacco advertising campaign.**

An antismoking ad campaign that draws on the energy and voice of Minnesota's youth will be launched next month to fight back against tobacco industry marketing tactics that each year lure thousands of new, young smokers. Some 400 kids from around the state will attend a youth summit called the "Kick Ash Bash" in St. Cloud for the official unveiling of a statewide information, education, and marketing campaign that promises to put young people on the frontlines.

"It's of, by, and for youth," says Christine Fruechte, of the state's new $7.5 million tobacco use prevention campaign. Fruechte is vice president and general manager of CME Kid Com, the youth marketing division of Campbell Mithun Esty (CME), which was chosen to develop the ads. She promises that youths will play a highly visible role in the Department of Health advertising campaign, which is funded out of the $6 billion-plus settlement from the state's tobacco lawsuit. They will sit on a youth advisory board—what Fruechte calls a "board of revolutionaries"—to offer input

on everything from the development and execution of the campaign to the final evaluation. "They're equal partners," she says.

In fact, young people were involved long before CME. Three teens sat on the nine-member health department advisory committee that helped select the ad agency and the Minneapolis office of the public relations firm Shandwick International to go head-to-head with the tobacco industry. Kevin Ely, an 18-year-old senior from Spring Lake Park High School, says he was impressed by CME's proposal to involve young people in the campaign. "I think kids respond to something that they have helped out with," he says.

Respond they must. That's the intention of the Health Department's Minnesota Tobacco Endowment Marketing Campaign, which is locked in a battle with tobacco interests over the lives of the state's young people. The campaign's focus on youth is significant, considering that 90 percent of adult tobacco users started smoking before age 18. The statistics aren't improving. According to the Minnesota Department of Health Youth Tobacco Survey, cigarette use by 12th-graders increased from 31 percent in 1992 to 42 percent in 1998.

Kevin Ely thinks he understands why. "It's a social thing," he says. "They're like, I can go to a party and smoke." But smoking doesn't always stop when the party ends, adds Ely, who is chair of his high school's chemical health awareness team. "Some of them get hooked while they're there."

Smoking may be a social act, but it's also an act of rebellion, according to Joe Loveland, marketing director for the Minnesota Tobacco Endowment and coordinator of the ad campaign for




the Health Department. By marketing tobacco as a product for adults only, the industry has made smoking a forbidden fruit. "Our marketing challenge is to make the decision to fight back against industry manipulation an act of youth rebellion," he says.

That fight begins with getting into the minds of young people. Ely, for one, thinks he understands

## 3-Way Campaign

At least $40 million a year in tobacco settlement money will pour into the fight against smoking for years to come, dwarfing Minnesota's previous efforts. Besides advertising, there's money being set aside for research, education, community organizing, and help for smokers to quit.

Three separate beneficiaries of the settlement—the state Department of Health, the private nonprofit Minnesota Partnership for Action Against Tobacco (MPAAT) and health-insurance giant Blue Cross and Blue Shield of Minnesota—are coordinating the efforts. All three have set ambitious goals for cutting Minnesotans' tobacco use, and all promise rigorous evaluation to hold them accountable:

- The Health Department is aiming for a 30 percent reduction among tobacco users under 18 by 2005. A 1998 Minnesota student survey showed 42 percent of high school seniors use tobacco.
- MPAAT hopes that fewer than 10 percent of all Minnesotans use tobacco by the organization's planned phaseout in 2023. The current figure is 18 percent.
- Blue Cross and Blue Shield wants 30 percent fewer of its members using tobacco in 10 years. A survey to determine the 1.9 million members' current level of use is under way, spokeswoman Maureen Schriner says.

Details of how to pursue those goals are still being developed. But broad strategies have been set, and millions of dollars' worth of contract-letting is under way.

*Reprinted with permission of the Star Tribune.*







FLORIDA DEPARTMENT OF HEALTH, DIVISION OF HEALTH AWARENESS AND TOBACCO

### *TRUTH and Consequences*

Teen smoking in Florida declined after the state implemented an innovative pilot program to fight tobacco use among youth. One facet of the program, the TRUTH campaign, involved aggressive ads—such as these—devised by Florida teens to target Big Tobacco.

Between 1998 and 1999, middle school students in Florida showed a 19 percent decrease in past-month cigarette use, while high schoolers' use fell by 8 percent, according to results from the Florida Youth Tobacco Survey. In the same year, the percentage of middle school students who reported ever smoking cigarettes daily fell by 34 percent, and the percentage of high school students, by 14 percent.

what makes his peers tick. They will not, he says, respond to paternalistic ads that try to frighten kids by presenting pictures of blackened lungs, people with hacking coughs, and warnings of serious illness and premature death. While these ads may have immediate shock value, the effect wears off. They're desensitizing, he says. "People get used to them." What's more, Ely believes, kids don't internalize such messages, because they think health problems can't happen to them.

A more successful ad campaign, according to Ely, will use a laid-back tone, one that's set by young people and doesn't sound like a parent scolding a child. "I do believe it will work if it's like that," he says. "My hope would be that this one doesn't center on the grossing-out tactics."

He'll get no argument from Fruechte. She knows, from surveys conducted by CME's youth marketing division, that talk about yellow teeth and black lungs doesn't faze young people. And she agrees that kids do tend to feel invincible. "So scare tactics are not the way to go."

The particulars of the Minnesota ad campaign will remain closely guarded until next month, but the agencies say it will include an attention-getting logo and a rally cry. Ads will run on television, radio, and in less traditional places such as the Web. There will be street marketing and other more unusual approaches, Loveland says. He also promises that the ads will be genuine, showing real kids in their communities.

Loveland says that Minnesota is looking at Florida's antitobacco campaign, which also focused on youth. Not many states have had a youth-exclusive marketing campaign, he says, so Florida is "a good starting point for us." At least one measure shows the possibilities. Between 1998, the start of Florida's campaign, and 1999, past-month smoking among middle school children declined from 18.5 percent to 15 percent.

Whatever course they take, Minnesota's antitobacco ads will have to be highly effective to battle the deep pockets of the tobacco industry. Though $7.5 million will be spent over the next 18 months, that's small change compared with the estimated $90 million the tobacco industry spends on advertising in Minnesota each year.

Will it be enough to reduce tobacco use among youth by 30 percent in the next five years? "It's not going to be an easy task," Fruechte concedes. "We're going to have to have every dollar working as hard as we can for us." To that end, she hopes the ads will become the foundation for the community prevention programs that also will be funded with tobacco settlement money.

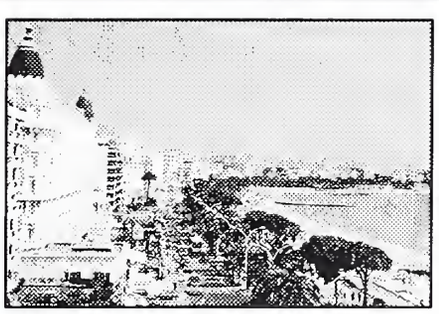
The effectiveness of the antismoking ads will be measured in surveys conducted before and after the campaign. Meanwhile, there is no question that the tobacco companies do a highly effective job of pitching their product. According to a 1996 study in the *Journal of Marketing*, teens are three times as sensitive to cigarette advertising as adults. In fact, 86 percent of kids who smoke choose Marlboro, Camel, or Newport, the three most heavily advertised brands.

Will kids be swayed by Minnesota's new antitobacco campaign? They have to be, Loveland says. "If we don't get this right, we'll never get ahead of the smoking problem." MM

*Miriam Karmel Feldman is a freelance writer in Minneapolis.*


**North Central Medical Conference**
Presents An Exciting Trip From Minneapolis/St. Paul

***THE SOUTH OF FRANCE***



**October 13-21 & October 20-28, 2000**

***$1,199*** **Per person, double occupancy. (Plus government taxes.)**

**PROVENCE** - a wonderful climate in an exceptional land, a profusion of color and fragrance, and fields of lavender and olive groves, almond trees and vineyards. The Provencal landscape and the intensity of the light have played a key role in the evolution of modern painting. It is here, in the South of France that you will find the world that inspired many of the great impressionist painters...Matisse, Cézanne and Van Gogh. Provence is one of nature's treasure troves and an historic wonderland you will long remember.

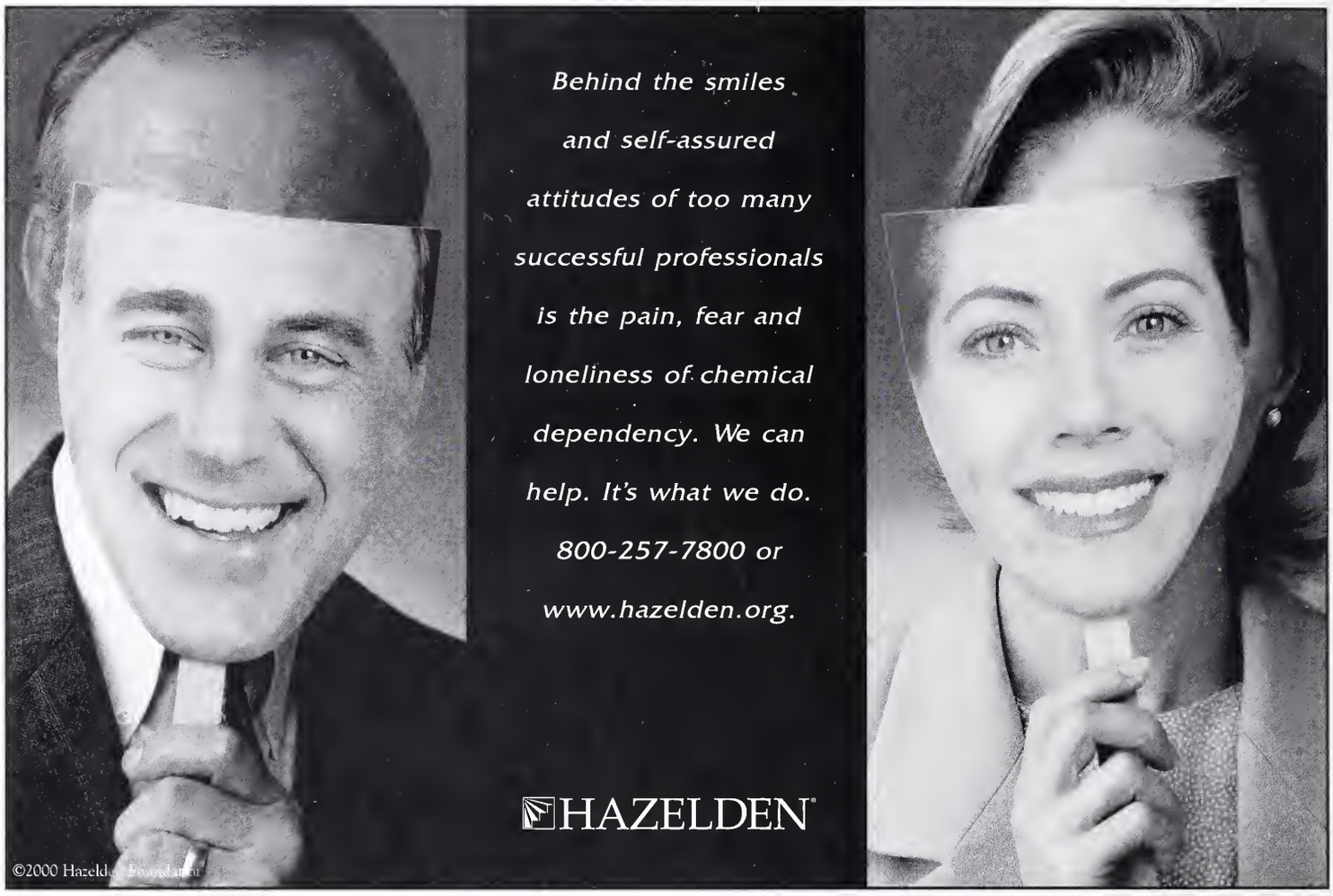
*Optional excursions include: Aix-en-Provence; The Camargue; Avignon; Chateauneuf-du-Pape; Les Baux-de-Provence and more!*

**THE FRENCH RIVIERA** - an oasis of color at the edge of the sparkling Mediterranean. A mirror reflecting luxury and simplicity, a rich and varied cultural scene and the wonderful art of relaxation. From the coastline dotted with old fishing ports to sunbaked stones in ancient hilltop villages, to the glittering principality of Monaco...try your luck at the famous casinos. Beautiful days, beautiful nights are yours to enjoy.

*Optional excursions include: Monaco, Monte Carlo; Nice, St. Paul de Vence, Grasse; Monte Carlo by Night and more!*

**AVAILABLE TO MEMBERS, THEIR FAMILIES AND FRIENDS.**
***For additional information and a color brochure contact:***

**GLOBAL HOLIDAYS**
8000 West 78th Street, Suite 345, Edina, MN 55439-2538
**(952) 918-8950** Toll Free:**1-800-842-9023** FAX **(952) 918-8901**




Brave?



Foolhardy?

UNCOMMON WISDOM
COMMON SENSE™

*When facing a particularly complex health law challenge, smart attorneys will advise their clients of the upside potential as well as the pitfalls. Before we embark on a course of action, we carefully survey the terrain and come well-equipped for any eventuality. Uncommon at most law firms. Common sense at Leonard, Street and Deinard.*

LEONARD
STREET
AND
DEINARD

MINNEAPOLIS · SAINT PAUL · MANKATO
(612) 335-1825 www.leonard.com




## Now Is the Time to Renew Your Membership for 2000

**Membership renewal materials for the year 2000 are in the mail.**

**If you haven't already done so, renew your membership today to ensure continuity of benefits and services.**

The MMA membership department will be glad to assist you in renewing your 2000 membership.

Call 800/DIAL MMA or 612/378-1875 to renew your membership by phone or to have renewal materials faxed to you.

**Save time. Renew today.**

MMA
MINNESOTA MEDICAL ASSOCIATION
MEDICINE'S VOICE IN MINNESOTA

# Logging On to 'Liquid Gold'

Michael Osterholm, former Minnesota state epidemiologist, has found a new epidemic to conquer: the information explosion. "You've heard the good news/bad news about the Internet?" he asks. "The good news is that it's a comprehensive and current source of information. The bad news is that it's a comprehensive and current source of information. So much of what's on the Internet is a mile wide and an inch deep."

Osterholm, Ph.D., M.P.H., plans to remedy that with ican, INC., the company he launched last year to develop the world's most comprehensive medical Web site. "There's so much information out there that people can't keep up," Osterholm says. "We're a deep, knowledge-based company building smart content. What our company is all about is mining nuggets of gold from the information available and delivering it via the Internet. We will be the liquid gold running through those pipelines."

The company's first offering, icanPREVENT, a one-stop information source for infection control and infectious disease professionals, went live on March 6. Its second, icanPRESCRIBE, an interactive information system designed to help physicians select and prescribe antibiotics (and help prevent their overuse and misuse) is being developed for a launch later this year.

*By Kim Palmer*

Michael Osterholm has launched a private venture, ican, INC., to put the latest infectious disease information at physicians' fingertips.



PHOTOGRAPH BY JOHN NOLTNER

"We believe we will be the J.D. Powers of prescribing information within the next two years," says Michael Osterholm.

Osterholm believes so strongly in the mission of his new venture that last year he left the state Department of Health, where he'd worked for 24 years, to commit himself to ican. "It was a hard decision," he says. "It grew out of the realization that, despite having the benefit of working with one of the best public health organizations in the country, we were able to have only an extremely limited impact" in the fight against infectious disease and antibiotic resistance.

Under Osterholm's 22-year leadership, the state epidemiology department enjoyed several high-profile successes, such as linking toxic shock syndrome to tampons, and identifying the source of several deadly outbreaks, including the Schwan's ice cream salmonella outbreak of 1994, the Legionnaire's disease outbreak in Luverne and Mankato in 1995, and the meningitis outbreak in 1997.

Osterholm, 46, developed a reputation as the "Epidemiologist Extraordinaire," according to the *Star Tribune*, and was sought out to consult with the Centers for Disease Control and Prevention, the World Health Organization, and even the late King Hussein of Jordan, who tapped Osterholm to be his personal adviser on the threat of bioterrorism.

"It was a real gift to serve in that job [as state epidemiologist]," he says. "There's a lot of public trust. In many ways, I was more in awe of that job when I resigned than when I started." But the issues that most concerned him were too big for one public health department to tackle, he concluded. "There are so many aspects where the potential risk of health care has increased," he says. "That position was going to get me only partway up the mountain."

## A Dream Team

Developing a database to give clinicians easy, immediate access to the best information available was an idea Osterholm and some of his colleagues had been mulling for some time. "Phil Peterson [director of infectious disease research and control for Hennepin County Medical Center in Minneapolis] and I had been talking about it for three or four years," Osterholm says. "We sensed this very uncomfortable world out there, because we knew we couldn't do what had to be done. No one had provided a template or road map.

"You can throw your arms up and say it's overwhelming," says Osterholm, who chairs the Emerging Infections Committee for the Infectious Diseases Society of America. "But we believe something can be done."

"When we do our job, people will have the opportunity to tuck their kids in at night and read them a story because of us. They won't know that. But we will."

That belief grew into ican. Osterholm and Peterson founded the Eden Prairie–based company last year with $5.5 million in venture capital. Osterholm is chair and CEO; Peterson serves on the board of directors. Ican began with four employees; its staff has since grown to more than 55, including 15 medical professionals involved in content development and four editorial employees. That doesn't include the 27 full-time experts at Agiliti, ican's technology partner, who have been working to build ican's infrastructure. "We'll soon be up to 80 employees," Osterholm says.

Ican has also assembled a team of 40 consulting experts to serve as an advisory board for icanPREVENT. The editorial board represents the very best in infection control, Osterholm says. It includes members Dr. Walter Hierholzer, hospital epidemiologist at Yale-New Haven Hospital; Dr. Ted Eichoff of the University of Colorado; and Dr. John McGowan of Emory University.

"We have assembled a dream team," Osterholm says. "They're all under contract and have equity in the company. They're very involved."

Osterholm says he has been pleasantly surprised by the caliber of staff and consultants ican has been able to attract. "They're dreamers and doers," he says. "People left wonderful jobs because they believed in the dream. They have a passion for what we're doing. Many of us say we left the best job in the world for the other best job in the world."

That job, ultimately, is to save lives. "When we do our job, people will have the opportunity to tuck their kids in at night and read them a story because of us. They won't know that. But *we* will."

## Subscription-based

IcanPREVENT, the company's first offering, is an ad-free, subscription-based service that costs $19.95 per month for individual clinicians. The plan, however, is for institutions, such as hospitals, state departments of health, or long-term care facilities to pay for systemwide access to icanPREVENT. The cost will vary by institution.

Subscribers log on to view "My Page," a customized area offering the latest information on a topic of personal interest to the subscriber. "Users tell My Page what topics to monitor, such as HIV infection, and it delivers the latest information via e-mail," Osterholm says.

Other planned features are the latest daily news, including perspective and analysis from leaders in the field, along with coverage of professional conferences, journal abstracts, and hot topics. "One of the things that's been frustrating for physicians is when a story [about a disease outbreak] breaks at 8 or 9 p.m.," Osterholm says. "The media pile on, and before the physician can get to work in the morning, the phone is ringing" with calls from concerned patients. "Doctors are caught short. With this system, physicians can log on, get current treatment issues, and have their questions answered."

IcanPREVENT users also can choose information on specific infection-control topics, such as antimicrobial resistance, bioterrorism, disinfection and sterilization, and nosocomial infections, as well as setting-specific information targeted to acute care, long-term care, home health care, and ambulatory and emergency medical settings. A "Diseases and Organisms" section offers detailed information, updated as new information becomes available, on 75 diseases, with details on lab diagnosis, clinical features, epidemiology, control measures, and further reading.

The site will offer online editions of the premier textbooks, with links to medical dictionaries, federal agencies, and state health departments, as well as annotated listings of professional journals and organizations, with links to their Web sites.

"IcanPREVENT will be a continuing-education resource," Osterholm says. "We're following all the public health Web sites. If a new regulation comes out, we'll immediately get it online to replace the old one." The site will address frequently asked questions and later this year contain 70 PowerPoint presentations that physicians can download if they're planning to give a talk.

In addition, icanPREVENT includes an extensive product research guide, with lists of products in 14 categories, from antisepsis to wound care, and objective information on product features. That information has never been available in one location before, Osterholm says.

IcanPREVENT also plans to conduct surveys and live forums, hosted by leaders in the area of infection control, and to field e-mailed questions from subscribers. "We have a full news team and a team of physicians reviewing journals as they come out," Osterholm says. "It will be like a textbook coming out every day."

## 'Avalanche of Information'

Not surprisingly, the biggest challenge ican has faced so far is sifting through and digesting the available medical knowledge. "We wanted to be out in the fall [of '99], but it's not easy to mine the avalanche of information out there," Osterholm says. "When you put yourself out there, you want to make sure that the information you have is the best. That's critical to our success." He knows the medical community will be watching. "We'll be under the microscope, so we have a compulsion with perfection."

Osterholm hopes to launch icanPRESCRIBE in beta later this year. "What we're doing will allow clinicians to determine, with a couple of clicks, whether a patient should receive an antibiotic, and if so, which one," he says.

To illustrate the current difficulty of finding up-to-date information in one place, Osterholm picks up a copy of "Guide to Antimicrobial Therapy: A Pocket Book of Infectious Disease Therapy," published in 1999. "It's outdated," he notes as he leafs through its hundreds of pages of tiny text. At least two drugs mentioned have since been taken off the market for killing two patients.

A printed textbook can't possibly be revised often enough to offer the most current data. Internet content can, but so far, the information hasn't been readily available, Osterholm says. "The existing systems have been limited, in-house systems—you can't take them anywhere else. We can leverage that information across all medical systems."

IcanPRESCRIBE will also include comparison data, such as the cost of various antibiotics that treat the same symptoms or conditions. "Let's say a physician is treating pseudomembranous colitis. There are two drugs, one that costs 18 cents a day and one that costs $21.45 a day. That happens all the time, and the clinician doesn't know. Clinicians tend to use the drug that's most publicized.

"We believe we will be the J.D. Powers of prescribing information within the next two years," Osterholm says.

## 'The Bar Is Set Very High'

If Osterholm has high expectations for ican, he's not alone. Marty Felsenthal, a principal with Nashville, Tennessee–based Salix Ventures, which funds health information technology startup companies and invested in ican, says that Osterholm's reputation helped seal the deal. "Being from Tennessee, we had never heard of Osterholm when we first got interested in ican," he told *Profits Journal* in November. "But as we did our due diligence, we discovered that he is actually the 'Dr. Koop' of infectious disease. That did end up playing a large role in our decision."

Although the information available via ican isn't proprietary, Felsenthal expressed little concern that another company might develop something similar and capture significant market share. "If you've got Michael Jordan, Scottie Pippen, and Charles Barkley on the same team, sure you can go up against them. But no one's going to beat them. [Ican] has the 'Who's Who' of infectious diseases; they've got the deepest knowledge base."

The health care and investment industries also are watching ican closely. *E-Pulse,* a weekly newsletter published by E*Offering, the Investment Bank of E*Trade, recently cited ican in its "Trend Spotter" section as being on the leading edge of the movement toward a business-to-business model in online medical information. "We represent the future of public/private partnerships," Osterholm says. "We have public-minded goals but a need for private resources."

Ican has a lot to live up to, Osterholm acknowledges. "We have the benefit of tremendous notoriety. The bar is set very high, so there's definitely some pressure. We have to deliver an incredibly comprehensive, user-friendly, timely system. Anything short of that isn't enough." MM

*Kim Palmer is a Twin Cities freelance writer and editor.*

***UNIVERSITY OF MINNESOTA DULUTH • SCHOOL OF MEDICINE***

***DEPARTMENT OF FAMILY MEDICINE***

We are seeking to fill one to two 20% - 75% non-tenured, faculty (assistant professor) postitions.

Primary responsibilities include program development and coordination of ongoing courses, case writing, coordinating clinical topics with other disciplines and evaluating students. Direct teaching involves extensive small group facilitation, classroom lecturing and informally mentoring medical students. A full description is on the Web: penguin.d.umn.edu/dr

***Qualifications***: Applicants must be graduates of a U.S. or Canadian training program with an MD or DO degree, board eligible in Family Medicine or other primary care specialty. Teaching experience is desired. Candidates should be willing to participate in part-time clinical practice.

***Salary/Benefits***: Based upon experience and % time appt.

***Term of Contract***: Non-tenured, temporary, annually renewable.

***Contact:*** Please submit vitae, 3 references & letter of intent to:

**Jeff Adams MD**
**Family Medicine Search Committee**
**UMD School of Medicine**
**10 University Drive, Duluth MN 55812**
**Phone: 218/726-7916 or FAX: 218/726-7699**
**E-mail:** jadams2@d.umn.edu

THE UNIVERSITY OF MINNESOTA IS AN EQUAL OPPORTUNITY EDUCATOR AND EMPLOYER



*ALEXANDRIA CLINIC, P. A.*

The Alexandria Clinic, P.A., is a 32-physician multi-specialty group currently recruiting additional physicians in the following specialties:

- ENT
- FAMILY PRACTICE
- GENERAL SURGERY
- NEPHROLOGY
- OPHTHALMOLOGY

First-year salary guarantee with production bonus, second-year partnership. Excellent contract benefits. If interested in joining a young, growing organization located in beautiful lakes area community, please contact:

Administrator
Alexandria Clinic, P.A.
610 30th Ave. W., Alexandria, MN 56308
320•763•5123

# Drive Safely. Savings On Auto Insurance Ahead.

**Save time with our fast, efficient service.**

Depending on the claim, an adjuster can be on-site within 24 hours and may be able to issue a check on-the-spot.

MMBR
Minnesota Medical Business Resources
Owned by MMA & HMS

Prudential has teamed up with the Minnesota Medical Association to bring you auto coverage that features safe-driver discounts, plus other ways to save!

**Buckle up for savings.**

- Safe & Sound discount—Pledge to be a safer driver, wear a seat belt, and avoid drinking and driving
- Good driver—Qualify by being accident-free or violation-free for three years
- Safety/anti-theft devices

**More discounts for even more savings.**

- MMA group discount
- Low annual mileage

Plus, a 15% discount if you also have a Prudential homeowners policy.

**How much can you save? Call for a free quote.** Get your free, no-obligation quote by phone in less than 10 minutes.

**1-800-637-2782**

Prudential

Merastar Insurance Company, Chattanooga, TN 37411, a subsidiary of The Prudential Insurance Company of America. IFS-19991129-A049258

# Where There's Smoke, There's Disease

## *The Dangers of Environmental Tobacco Smoke*

*Environmental tobacco smoke (ETS), also referred to as secondhand smoke, is a serious threat to human health. It is especially harmful to children who live with smokers. Here are some approaches to reducing exposure.*

David Jones, M.S., Barry Dunayer, Christina Thill, Laura Oatman, M.S.

*Editor's Note: Smoking is bad. Inhaling someone else's smoke is bad. Tell your patients and read on for specific suggestions on how to reduce exposure to secondhand smoke.*

Barbara P. Yawn, M.D., M.Sc.
Series Editor

### *What Is Environmental Tobacco Smoke?*

ETS consists of smoke released from the burning end of a cigarette or cigar, or bowl of a pipe, and from smokers' exhalation. It is a complex mixture of gases and particulates containing as many as 4,800 chemicals formed by incomplete burning of tobacco's organic matter. However, some researchers suggest the number might be much higher.[1] Formaldehyde and carbon monoxide are familiar constituents of ETS. Others include nicotine, carcinogenic tars, sulfur dioxide, ammonia, oxides of nitrogen, vinyl chloride, hydrogen cyanide, various radionuclides, benzene, lead, and arsenic.

The classes of the various chemicals present in tobacco smoke and ETS include

- inorganic gases (e.g., carbon monoxide)
- metals (e.g., cadmium)
- particulates (e.g., tar)
- radioactive contaminants (e.g., polonium-210)
- volatile organic compounds (e.g., benzene)
- organic nitrogen compounds (e.g., dimethylnitrosamine)
- ketones (e.g., acetone)
- polynuclear aromatic hydrocarbons (e.g., benzo[a]pyrene).

According to the International Agency for Research on Cancer (IARC), 43 carcinogenic compounds have been identified in tobacco smoke (see Table 1).[2] Other studies have identified slightly more.[3] In addition, many of the other constituents are considered highly toxic. Some are mutagenic, teratogenic, radioactive, strong irritants, and sensitizers.

### *Exposure to ETS*

ETS diffuses rapidly indoors and persists long after smoking ceases. It takes only a few smokers in a given space to create a fairly steady stream of ETS in the indoor air. Complex interactions occur as ETS ages, and the concentrations of some constituents actually increase four hours after the smoke source has been extinguished. Some constituents are present in ETS at higher levels than in the mainstream smoke inhaled directly by the smoker.

People inhale ETS constituents when they breath air where smoking has occurred. This passive smoking occurs commonly in homes, workplaces, and other indoor settings where people smoke and where air circulates from smoking into nonsmoking areas. ETS substances can be measured in nonsmokers' body fluids. Nearly nine in 10 nonsmoking Americans are exposed to ETS.[4]

### *Minnesotans Exposed to ETS at Home*

An emerging public health priority will be to eliminate exposure to ETS in the workplace, restaurants, and most important, the home. Because children spend much of their time at home, their greatest and most harmful exposures result from passive smoking there.

According to a 1997 survey by the Minnesota Department of Health,[5] about 24 percent of households had at least one smoker inside the home; rates were higher for homes in greater Minnesota (26% compared with 22% in the metro area). Another survey recently found that children in one of five homes in Hennepin County are exposed to secondhand smoke in their homes. Children's exposure rates were higher for households with incomes between 100% and 150% of the federal poverty level. According to research reported in *Preventive Medicine*, adolescents' exposure to ETS decreased by 92% in homes where smoking is not allowed.[6]

### *Health Effects*

In 1985, three major bodies convened independently to evaluate the health implications of passive smoking. They were commissioned by the U.S. Public Health Service, the National Research Council, and the Interagency Task Force on Environmental Cancer, Heart and

Lung Disease. The consensus of the groups was that passive smoking significantly increases the risk of lung cancer in adults.[7,8] A 1986 report by the U.S. Surgeon General[9] concluded that ETS caused lung cancer, but too few studies were available at that time to assess its relationship to heart disease.

In a 1992 report,[8] the U.S. Environmental Protection Agency (EPA) classified ETS as a Group A (known human) carcinogen. This classification is reserved for compounds or mixtures that have been shown in human studies to cause cancer. The EPA report presented a comprehensive analysis of numerous respiratory studies examining the health effects of ETS. The review included more than 30 epidemiologic (human) studies specifically examining ETS. The EPA also considered data on active smoking, animal testing, and human uptake of tobacco smoke components. The EPA's Scientific Advisory Board of 18 independent scientific experts concurred with its methods and findings. The report was further endorsed by the U.S. Department of Health and Human Services, the National Cancer Institute, the U.S. Surgeon General, and other major health organizations.[10,11]

Serious respiratory problems in adults and children can be caused by exposure to ETS. Of particular concern is the fact that children are most affected by ETS because their developing lungs are susceptible to severe respiratory diseases and may not grow normally—potentially leaving lifelong effects. ETS increases the risk of lower respiratory tract infections, such as bronchitis and pneumonia. Between 150,000 and 300,000 of these cases annually in infants and children up to 18 years old are attributable to ETS exposure, which can cause the following in children:

- increased prevalence of fluid in the middle ear, a sign of chronic middle ear disease;
- irritation of the upper respiratory tract (causing coughing, wheezing, and excess production of phlegm); ETS is also associated with a small but significant reduction in lung function;
- increases in the frequency of episodes and severity of symptoms in asthmatic children;[8] and
- increases in new cases of asthma in children.

In 1997, the California EPA[3] conducted its own review of ETS and concluded that it causes lung cancer and nasal sinus cancer, among numerous other serious, debilitating, or fatal health conditions in humans, including "developmental, respiratory, carcinogenic, and cardiovascular effects ... fatal outcomes such as sudden infant death syndrome and heart disease mortality, as well as serious chronic diseases such as childhood asthma." The California EPA's report estimated that as many as 62,000 Americans die annually from heart disease caused by ETS. Furthermore, the report added that ETS contributes to nearly 6,000 additional deaths each year from lung cancer, sudden infant death syndrome, and childhood respiratory ailments. The monograph, published in 1999 by the National Cancer Institute, is considered the most comprehensive report to date on the health effects of ETS. Its strongest conclusions are summarized in Table 2.

Table 1

***Chemicals identified in tobacco smoke for which IARC concludes there is "sufficient evidence" of carcinogenicity in humans or animals***

| | |
|---|---|
| acetaldehyde | formaldehyde |
| acrylonitrile | 7H-dibenzo(c,g)carbazole |
| arsenic | hydrazine |
| 4-aminobiphenly | indeno(1, 2, 3, -cd)pyrene |
| benz(a)anthracene | lead |
| benzene | 5-methychrysene |
| benzo(a)pyrene | 2-naphthylamine |
| benzo(b)fluoranthene | nickel |
| benzo(j)fluoranthene | 2-nitropropane |
| benzo(k)fluoranthene | N-nitrosodiethanolamine |
| cadmium | N-nitrosodiethylamine |
| chromium VI | N-nitrosodimethylamine |
| DDT | N-nitroso-n-methylethylamine |
| dibenz(a,h)acridine | N-nitrosodi-n-propylamine |
| dibenz(a,j)acridine | N-nitrosonornicotine |
| dibenz(a,h)anthracene | N-nitrosopiperidine |
| dibenzo(a,i)pyrene | N-nitrosopyrrolidine |
| dibenzo(a,e)pyrene | O-anisidine |
| dibenzo(a,h)pyrene | O-toluidine |
| dibenzo(a,l)pyrene | urethane |
| 1,1-dimethylhydrazine | vinyl chloride |
| 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone | |

Other scientific bodies and recently released studies have come to similar conclusions. For example, the National Toxicology Program unanimously recommended in its 1998 Ninth Report on Carcinogens[12] that secondhand smoke be listed as a known human carcinogen. In addition, the 1998 Report of the Scientific Committee on Tobacco and Health from the United Kingdom Department of Health[13] concluded that passive smoking is a cause of lung cancer, childhood respiratory disease, ischemic heart disease, sudden infant death syndrome (cot death), middle ear disease, and asthmatic attacks in children.

Published research has also shown that occupational exposure to ETS poses health risks. In a meta-analysis of five investigations, Judson Wells found exposure to ETS

Table 2

*Health effects associated with exposure to environmental tobacco smoke according to the 1997 California EPA report on ETS*

| |
|---|
| **Carcinogenic Effects** |
| Lung cancer |
| Nasal sinus cancer |
| **Cardiovascular Effects** |
| Heart disease mortality |
| Acute and chronic coronary heart disease morbidity |
| **Developmental Effects** |
| Fetal growth: low birth weight or small for gestational age |
| Sudden infant death syndrome |
| **Respiratory Effects** |
| Acute lower respiratory tract infections in children |
| Asthma induction and exacerbation in children |
| Chronic respiratory symptoms in children |
| Eye and nasal irritation in adults |
| Middle ear infections in children |

in the workplace was associated with risk of lung cancer.[14] A recent multicenter study conducted by the IARC also reported increased risks of lung cancer in nonsmoking spouses of smokers and persons exposed to ETS in the workplace.[15]

## *Reducing ETS Exposure*

Several approaches eliminate or minimize exposure to ETS, including clean indoor air legislation, local ordinances, and voluntary measures. In 1975, the Minnesota Clean Indoor Air Act (MCIAA) was enacted to protect public health by restricting smoking in public and work places. Minnesota's legislation, the first of its kind in the nation, now lags behind more restrictive laws in several other states. When the MCIAA was first written, ETS was thought to be primarily an irritation. The Minnesota Department of Health is currently revising the MCIAA implementation rules to provide greater protection to nonsmokers.

Although the MCIAA regulates where people smoke, it cannot control where ETS goes after it is produced. Under the law, all indoor public places are considered nonsmoking unless smoking areas are designated and posted according to state law. Smoking is prohibited in certain public places such as health care facilities, public schools, and day care facilities during hours of operation. The MCIAA is a *minimum* standard; owners and managers can designate their buildings as smoke-free.

Advocacy groups have the power and influence to implement and support smoke-free policies in their communities, workplaces, restaurants, and other public places. Community members can also look to legal approaches to reducing ETS exposure—for example, via the Americans with Disabilities Act, Federal Fair Housing, Workers' Compensation, and Unemployment Compensation.

Crookston, Minnesota, has become the first Minnesota city to make all restaurants smoke-free. A number of other communities, including Shakopee, New Prague, Little Falls, Faribault, and Mound, are developing smoke-free policies. In each community the citizen groups behind these efforts include physicians and other health care providers.

The U.S. EPA has developed a secondhand smoke media campaign that includes a public service announcement. This is the first wave of a national, multiyear media campaign to raise awareness about the dangers of secondhand smoke to children and encourage adults to "take it outdoors." For information, visit the EPA Web site listed at the end of the article.

## *What Can Physicians Do?*

Health care professionals, especially pediatricians and pediatric nurse practitioners, should take smoking histories from parents and guardians of children, and they should encourage adult caregivers to quit smoking and provide guidance on smoking cessation options.

Physicians can educate parents about the health hazards of ETS. They should recommend that parents, guests, and other adults not smoke in the home or the car, since the concentration of ETS is high in small spaces.

Physicians and other health care professionals can encourage state and local governments to enact legislation, regulations, and ordinances prohibiting smoking in all workplaces, multihousing units, nonlicensed child care homes, and all public places.

Finally, physicians should support community efforts to prevent children from being exposed to ETS by talking or writing to local officials about the need for smoke-free environments for children or writing a letter to the editor of local publications addressing the effects of ETS and what parents can do to protect their children's health. MM

*David Jones is a research scientist and Laura Oatman is the supervisor for the Minnesota Department of Health's Indoor Air Program. Barry Dunayer and Christina Thill are tobacco control specialists in the Tobacco Prevention and Control Section at the Minnesota Department of Health.*

## *For More Information*

*For information on the Minnesota Clean Indoor Air Act or to report complaints, contact the Minnesota Department of Health's Environmental Health Division at 651/215-0909. For further information regarding local efforts to reduce ETS, contact the Tobacco Prevention and Control Section at 651/215-8952.*

*For more information regarding environmental to-*

*bacco smoke, visit the following Web sites:*
- *American Medical Association: www.ama-assn.org*
- *Minnesota Department of Health: www.health.state.mn.us*
- *U.S. Environmental Protection Agency: www.epa.gov*

*Centers for Disease Control: www.cdc.gov*
- *California's EPA Report (NCI Monograph10): rex.nci.nih.gov.*

REFERENCES

1. Guerin MR, Jenkins RA, Tomkins BA. The chemistry of environmental tobacco smoke: composition and measurement. Boca Raton: Lewis Publishers, 1992.
2. International Agency for Research on Cancer monographs on the evaluation of the carcinogenic risk of chemicals to humans. Tobacco smoking. Volume 38, Lyon, France: IARC, 1986. (ISBN 92 832 1238 X).
3. National Cancer Institute. Health effects of exposure to environmental tobacco smoke: report of the California Environmental Protection Agency, smoking and tobacco control monograph no. 10. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute, 1999 NIH Pub. No. 99-4645.
4. Pirkle JL, Flegal KM, Bernert JT, et al. Exposure of the U.S. population to environmental tobacco smoke: the third national health and nutrition examination survey, 1988 to 1991. J Am Med Assoc 1996;275:1233-40.
5. Behavioral Risk Factor Surveillance Survey (1997). Minnesota Department of Health, Center for Health Statistics. Unpublished data.
6. Beiner L, Cullen D, Di ZX, et al. Household smoking restrictions and adolescent exposure to environmental tobacco smoke. Prev Med 1997;26:358-63.
7. U.S. Environmental Protection Agency. Indoor air facts no. 5: environmental tobacco smoke (ANR-445), 1989.
8. U.S. Environmental Protection Agency. Respiratory health effects of passive smoking: lung cancer and other disorders (EPA/600/6-90/006F), 1992.
9. Center for Disease Control and Prevention. The health consequences of involuntary smoking: a report of the surgeon general. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, CDC; 1986. DHHS Publication no. (CDC) 87-8398.
10. U.S. Environmental Protection Agency. Setting the record straight: secondhand smoke is a preventable health risk (EPA-402-F-94-005), 1994.
11. U.S. Environmental Protection Agency. Fact sheet: respiratory health effects of passive smoking (EPA-43-F-93-003), 1993.
12. National Toxicology Program, ninth edition, report on carcinogens. National Institutes of Environmental Health Sciences: National Institutes of Health. In review.
13. Report of the Scientific Committee on Tobacco and Health. U.K. Department of Health. The Stationary Office, 1998.
14. Wells AJ. Lung cancer from passive smoking at work. Am J Public Health 1998;88:1025-9.
15. Boffetta P, Agudo A, Ahrens W, et al. Multicenter case-control study of exposure to environmental tobacco smoke and lung cancer in Europe. J Natl Cancer Inst 1998;90:1440-50.

## *Additional Reading*

Farkas A, Gilpin E, Distefan J, Pierce J. The effects of household and workplace smoking restrictions on quitting behaviours. Tob Control 1999;8:261-265.

Fontham ET, Correa P, Reynolds P, et al. Environmental tobacco smoke and lung cancer in nonsmoking women. Am Med Assoc 1994;271:1752-9.

Fontham ET, Correa P, WuWilliams A, et al. Lung cancer in nonsmoking women: a multicenter case-control study. Cancer Epidemiol, Biomarkers Prev 1991;1:35-43.

Glantz SA, Parmley WW. Passive smoking and heart disease: epidemiology, physiology, and biochemistry. Circulation, 1991.

National Research Council. Environmental tobacco smoke: measuring exposures and assessing health effects. Washington, DC: National Academy Press; 1986.

Stockwell HG, Goldman AL, Lyman GH, et al. Environmental tobacco smoke and lung cancer risk in nonsmoking women. J Natl Cancer Inst 1992;84:1417-22.

**Lake Superior Lifestyle!**



**We are seeking a *pediatrician* to join our well established professional association in Duluth.**

*If you are looking for a high quality environment in which to live and work, please contact: Susan Streitz, M.D. at 218-722-1408.*

*Our offices overlook one of the world's most stunning bodies of water — Lake Superior.*

**Kundel & Streitz, P.A.**

**1000 East First St., Duluth, MN 55805**

## ANNOUNCEMENTS



### AMA Discontinues Accreditation Program

The American Medical Association announced a decision in February to stop funding its American Medical Accreditation Program (AMAP). This program, which began operating in 1998, was designed to evaluate individual physicians using national standards and peer performance. The MMA Board of Trustees voted to monitor the AMAP before deciding whether to participate.

### 'You Are Gloved' to Become Yearly Event

This winter, the Minnesota Medical Association Alliance (MMAA) collected 200 pairs of new gloves and mittens and distributed them to elementary school children living on Indian reservations. 'You Are Gloved' is part of the MMAA "Stop America's Violence Everywhere" campaign. The alliance plans to make the project an annual event.

# Bill to Trade Sick Tax for Tobacco Money Is Smoking in the House

A bill that would replace the provider tax with the state's tobacco settlement on a contingency basis has overwhelming bipartisan support in the House of Representatives.

HF 2716, introduced by Rep. Fran Bradley (R-Rochester), was heard by the House Tax Committee on February 24 and was subsequently laid over for possible inclusion in the House omnibus tax bill. The Senate Health and Family Security Committee passed a companion bill, SF 2565, the same day. It is unclear, however, whether Gov. Jesse Ventura will sign this proposed legislation during the current non-budget session.

A recent Minnesota Taxpayers Association study, co-sponsored by the MMA, found serious flaws with the state's health care taxes and may have increased public awareness that these taxes are unfair, regressive, and hidden.

Doug Davis of the American Association of Retired Persons (AARP) testified before the Tax Committee. "The provider tax is like the skunk who has taken up residence under the front porch—hated by everyone, loved by no one," said Davis.

Dave Renner, MMA director of state and federal legislation, said testimony by consumer groups and particularly the AARP, which has opposed the MMA on issues in the past, is significant. "This demonstrates that regular consumers, not just those in health care–related fields, are recognizing that these taxes hurt everyone by contributing to higher health care costs and premiums," he said.

The proposed legislation would apply all unallocated payments received as a result of the state's tobacco settlement to the Health Care Access Fund. Each year, the commissioner of finance would assess the balance of the fund to ensure that no deficit occurs.

Ongoing annual revenue of about $200 million from the tobacco settlement nearly equals funds collected annually through the provider and premium taxes. Concerns that factors such as rising health care costs or dwindling lawsuit revenues could deplete the fund are addressed by allowing the taxes to be reinstated in ¼-percent increments, using the lowest rate needed to eliminate a projected structural deficit.

HF 2716 passed the House Health and Human Services Policy Committee on February 15 and the House Health and Human Services Finance Committee on February 21.

Blanton Bessinger, M.D., Minnesota Medical Association president-elect, testified on behalf of the bill in the Policy Committee, citing the MTA study. "The provider tax is regressive—those with the least pay the most," he said. "Of particular concern is the fact that the tax is invisible. Our complicated health care system insulates individuals from the actual cost of care—few people actually know they are paying this tax," said Bessinger.

Leaving sick tax language on the books is not a perfect solution, said Renner. "On the positive side, this bill would take a big step toward eventually eliminating these taxes," he said. "If this bill is to have any chance of being signed into law, it is critical that our members express their support for it to the governor and their senators."

# VIEWPOINT

*John M. Van Etta, M.D.*
*MMA President*



## Medicare Leaves Minnesota Seniors Out in the Cold "Is It Good Medicine?"

Location, location, location. Everyone knows these are the top three factors to consider in buying real estate, but they shouldn't determine Medicare benefits. All seniors have contributed equally to Medicare. They should get the same benefits. Unfortunately, it doesn't work that way. As you know, location counts in Medicare.

Consider the case of Mary Sarno, who is the co-plaintiff with the state of Minnesota and the Minnesota Senior Federation Metropolitan Region in a lawsuit against the United States government and Donna Shalala, secretary of the Department of Health and Human Services. The lawsuit seeks to correct the low and disparate p managed care reimbursement rates paid by the Medicare program in Minnesota compared with the rates in other states.

Sarno, a senior citizen living in Florida, wants to move back to Minnesota to live near her family, but she can't afford to because she'd lose Medicare benefits and have to pay higher out-of-pocket costs. The lawsuit charges that this violates her constitutional right to travel.

The Minnesota Medical Association recently filed an affidavit in the lawsuit and plans to file an *amicus* brief as well. The goal is to force the federal government to give all Medicare beneficiaries a fair deal.

The MMA also chose the unfair Medicare system as the topic of its first "Is it Good Medicine?" campaign.

The AMA launched the "Is it Good Medicine?" campaign last year to focus health care debates on the welfare of our patients. Since its unveiling, the question has been used by several state medical societies as a rallying cry and a litmus test.

As scientists, we know we can find the right answer only when we ask the right question: Is it good medicine? This litmus test allows us to use our clinical and scientific training to evaluate political issues and to drive the health care debate.

The Medicare system cries out to be subjected to this test. Therefore, the MMA and the AMA collaborated on developing and placing an advertorial with the headline: "It's Illegal for Medicare to Treat Minnesota Seniors Fairly" and ending with the line, "Is it Good Medicine?" The ad ran in the Minneapolis-based *Star Tribune*, the Rochester-based *Post Bulletin*, and the *Duluth News Tribune*. Look for the full-page ad on page 3 of this issue of *Minnesota Medicine*.

The MMA will continue to ask policymakers on Medicare and all other health care issues the one question that can focus the debate, establish common ground, and serve as an invaluable guide in designing new proposals, whether local or national: Is it good medicine?

The AMA campaign's emphasis is less on winning than on making sure physicians drive the debate.

To preserve the spirit of the campaign, the AMA established rules of engagement: Don't rephrase the question, don't convert it into a declarative statement, and don't answer it. However tempting it may be to rush in and give the answer instead of letting your listener figure it out, the campaign works best when we concentrate on focusing the debate.

In the months ahead, you will hear the MMA asking, "Is it good medicine?" more and more frequently. Whenever health care is the issue, this should be the only real question.

# The MMA Is Working for You at the Legislature




### Bill to Prohibit Contract Stacking Introduced

As *Minnesota Medicine* goes to press, new legislation designed to protect physicians from a health plan practice known as "contract stacking" has been introduced and referred to the House Health and Human Services Policy Committee and the Senate Commerce Committee.

Many, but not all, health plans have clauses in their contracts that say, by signing as a provider in one network, the physician agrees to participate in all the plan's networks, including any it may develop in the future. Through this tactic, physicians are unknowingly forced into participating in a product they did not choose to join.

HF 3310 and SF 3055, sponsored by Rep. Jim Abeler (R-Anoka) and Sen. Sheila Kiscaden (R-Rochester), would prohibit health plans from contract stacking among health, workers' compensation, and no-fault auto products. It would also require health plans to provide physicians with written notice detailing provisions of any new product and allowing 30 days to refuse participation.

"This bill is a starting point for eventually eliminating this deceptive contracting practice," said Dave Renner, MMA director of state and local legislation. "Legislators need to hear the physician point of view about this inappropriate means of conducting business."

### Safe Needle Legislation Passes Committee

Legislation designed to protect employees from accidental sticks from needles and other sharps passed the Senate Jobs and Economic Development Committee in February. The MMA had concerns about the original legislation (SF 2397), sponsored by Sen. Linda Higgins (DFL-Minneapolis), which would have mandated use of new safe needles in areas where they have not been shown to be effective.

The legislation has since been amended to reference current OSHA regulations requiring that employers eliminate or minimize employee exposure to bloodborne pathogens through sharps injuries. Under the regulations, employers must have written exposure control plans and must establish a safety subcommittee to recommend engineering controls. This legislation would also require employers to ask employees injured by needlesticks how accidental sticks might be avoided in the future. This legislation passed out of committee without any opposition.

### Complementary and Alternative Medicine Bill Tabled in House

A bill (HF 537) that would provide practitioners of complementary and alternative medicine with unprecedented immunity from civil and disciplinary actions has received two lengthy hearings this year in the House Civil Law Committee. On February 14, a motion was made and adopted to lay the bill, which was sponsored by Rep. Lynda Boudreau (R-Faribault), on the table until a later date, to be determined by the chair of the committee.

The Senate companion for the legislation (SF 689), sponsored by Sen. Twyla Ring (DFL-North Branch), received an informational hearing in the Senate Health and Family Securities Subcommittee on Health Occupations. It is unclear whether the Senate will give this bill further hearings this session.

The MMA, along with the Board of Medical Practice, the Minnesota Hospital and Healthcare Partnership, and the Minnesota Trial Lawyers Association, has led opposition to the bill.

### Bill Weakening Tort Reform Laws Progresses

Legislation that would significantly weaken Minnesota's Tort Reform laws passed the House Civil Law Committee on February 16. The Minnesota Trial Lawyers Association is promoting this legislation (HF 2569), introduced by Rep. Steve Smith (R-Mound).

The bill seeks to amend a current law on expert witness affidavits in medical malpractice cases. The prevailing statute calls for mandatory dismissal of a case if the plaintiff does not serve an expert witness affidavit that is in compliance with certain requirements. The proposed legislation would give a plaintiff suing a doctor an additional 60 days to cure an alleged defect in an expert witness affidavit rather than dismissing the case. The bill may be an attempt to bolster a few cases in which the plaintiff's attorney did not follow the rules.

This legislation would significantly shift the balance in favor of the plaintiff suing a physician and negates many of the reasons the current law was adopted in 1986, including reducing the number of frivolous lawsuits going to trial.

The MMA, Midwest Medical Insurance Company, Minnesota Defense Lawyers Association, Mayo Clinic, and Minnesota Hospital and Healthcare Partnership strongly oppose this bill. It is unclear whether it will be heard by the full House or Senate.

# Reading the Signs of Childhood Sexual Abuse

"Children across all cultural and socioeconomic groups may be victims of sexual abuse," Linda Thompson, M.D., told University of Minnesota medical students.

Thompson, a pediatrician at Hennepin County Medical Center for 25 years and a frequent expert witness in child sex abuse cases, discussed signs and symptoms of childhood sexual abuse in a February 15 seminar at the University of Minnesota Medical School. The seminar was the second in a four-part series planned by several agencies.

In 1996, there were 119,000 substantiated reports of childhood sexual abuse. These cases, which represent 12 percent of all victims of maltreatment, are made up of 77 percent female victims and 23 percent male victims, according to Thompson.

> Studies indicate that each year, 1 percent of children experience sexual abuse.

Some behavioral indicators of sexual abuse in children include excessive masturbation, promiscuity, and sexual abuse of others. Physical symptoms include somatic complaints, complaints involving elimination, placing foreign objects in vagina or rectum, pregnancy, sexually transmitted diseases, injuries, or bleeding in the genital, anal, or urethral areas.

Although physicians may hesitate to inquire about sexual abuse because of lack of time or training, discomfort with discussing issues of sexuality, and fear of offending a child's family members, making the effort to detect and deter abuse is part of the primary caregiver's role, said Thompson.

Anticipatory measures regarding sexual abuse include discussing good and bad touch, incorporating a genital exam into a well-child checkup, and empowering children to tell secrets about sexual abuse.

Studies indicate that each year, 1 percent of children experience sexual abuse, said Thompson. "Of the total number of patients a pediatrician sees annually, that would equal about 20 cases of sexual abuse—that's not to say physicians will see nearly that many."

# FDA Regulation Seeks Cure for Herbal Remedy Confusion

At the 1999 American Medical Association Interim Meeting last December, resolutions regarding dietary supplements and herbal remedies were as popular as green tea. The Minnesota Medical Association delegation to the AMA House of Delegates brought one such resolution—calling on the AMA to seek increased Food and Drug Administration (FDA) regulation of such products.

Meanwhile, critics of a new FDA rule say the agency is relaxing its standards and putting consumers at risk of being taken in by false or dangerous claims. Ironically, the consumers who spend $6 billion a year on these products—the ones opponents of the rule say need protection—generally want the government to keep its regulations off their ginkgo biloba.

In January, the FDA announced a dietary supplement strategy aimed at providing consumers with a high level of confidence in the safety, composition, and labeling of dietary supplements. A final rule, effective in February, defines the types of statements that can be made about a dietary supplement's effects pursuant to the Dietary Supplement Health and Education Act of 1994 (DSHEA) and relaxes labeling regulations for certain types of supplements.

In the past, makers of dietary supplements have been able to avoid undergoing the FDA regulatory process by making no actual claims about their products. Labels could only hint at what the product does, with names such as "ArthriCare" or "CircuCure."

Under the new rule, labels can claim the product helps with minor complaints, such as hot flashes or poor memory, but may not claim it can treat an actual disease.

DSHEA differentiates between structure/function claims, which say a product affects the structure or function of the body, and disease claims, which say it can treat, cure, mitigate, or diagnose disease. The rule precludes both express disease claims ("prevent osteoporosis") and implied disease claims ("prevents bone fragility in post-menopausal women") without prior FDA review.

Under DSHEA and existing regulations, dietary supplement manufacturers are already required to have, in their files, substantiation of any structure/function claims they make. They must also include a disclaimer on their labels that the dietary supplements are not drugs and receive no FDA premarket approval. Finally, they must notify FDA of the claims they are making within 30 days of marketing a given dietary supplement.

AMA policy recognizes that dietary supplements are often used like drugs, and should therefore be subject to a regulatory scheme more like those used for other over-the-counter products.

# NEWS DIGEST

*People and places making medical news*



## People & Places

John R. Gates, M.D., has been installed as the 129th president of the Ramsey Medical Society. Gates, a neurologist and epilepsy specialist, is the president of the Minnesota Epilepsy Group and a clinical professor of neurology and neurosurgery at the University of Minnesota.

Neal Holtan, M.D., medical director of the St. Paul-Ramsey County Health Department, received the Ramsey Medical Society Community Service Award for 1999. Among other activities, Holtan cofounded the Council for Preventive Medicine, serves on the board of the Health Care Coalition on Violence, and has worked with the Center for Population Health and the Center for Victims of Torture.

The Foundation HealthSystem Minnesota has named oncologist J. Paul Carlson, M.D., its 1999 Earl G. Young Physician of Excellence. Carlson was selected for his dedication, kindness and compassion, clinical excellence, service to other physicians, and community involvement. He is the medical director of the hospice program at Methodist Hospital HealthSystem Minnesota and head of the oncology department at Park Nicollet Clinic.

The Governance Institute of La Jolla, California, has named HealthEast Care System to its list of the top 20 best-governed health systems in the country. HealthEast was cited for its policy and strategic focus, streamlined board and committee size and structure, and its commitment to education and self-evaluation.

Jeff Klausner, D.V.M., M.S., professor and chair of small animal clinical sciences, has been named dean of the College of Veterinary Medicine at the University of Minnesota. He has been interim dean since 1998.

Glenn Anderson, of the Human Development Center, Duluth, has been elected president of the Minnesota Association of Community Mental Health Programs.



## Socioeconomics

### Federal Auditor Questions Medica's Administrative Costs

U.S. Department of Health and Human Services investigators have questioned $1.2 million in administrative expenses at Medica Health Plans. Medica was among nine HMOs audited in an effort to determine administrative costs. Though not illegal, the costs in question include expenses for a luxury box at the Target Center, employee massages, and employee gifts. Medica has defended its spending as necessary to retain and support employees. Medica spent $148.2 million on administrative costs in 1998, about 12 percent of total expenses. The national average is 15 percent, according to an InterStudy report.

### NIH Eases Restrictions On 'U'

The National Institutes of Health has lifted some of the sanctions it imposed on the University of Minnesota more than four years ago when investigators discovered the misuse of millions of dollars in research grants, mostly in the Surgery Department. The NIH is restoring the university's authority to make spending decisions, and it may ease all sanctions by September. The university has spent $11 million to revamp its systems for monitoring grant expenditures.

### State, Blue Cross Fund Regional Immunization Registries

The Blue Cross and Blue Shield of Minnesota Foundation and the Min-

nesota Department of Health are providing grants to regional immunization registries to further their efforts to help parents, providers, and schools track childhood immunizations. The goal is to make electronically stored records available statewide to people who have access to the paper versions of immunization records.

**CentraCare Clinic** *is a progressive and growing 108-physician multi-specialty clinic with 9 Central Minnesota sites. Our clinics offer a comprehensive income and benefits package and are conveniently located between the Twin Cities and prime Minnesota lakes area. Central Minnesota offers an outstanding lifestyle with quality schools and abundant recreational activities. CentraCare Clinic is currently recruiting for the following locations:*

**CENTRACARE Clinic**
River Campus

***Join*** *an exceptional 65-physician specialty clinic which currently has openings in the following specialties:*

- Allergy
- Internal Medicine *St. Cloud/Little Falls*
- Dermatology
- Neurology
- Neurosurgery
- Gastroenterology
- Pediatric Intensivist
- Infectious Disease
- Rheumatology
- Non-Interventional Cardiology

**CENTRACARE Clinic**
Heartland

***Join*** *an experienced 6-physician clinic with an opening in:*

- Family Practice Physician who practices Obstetrics

**CENTRACARE Clinic**
Women & Children's Center

***Join*** *an exceptional 21-physician clinic specializing in pediatrics and obstetrics/gynecology which currently has openings in the following specialties:*

- Allergy
- Pediatrics
- Obstetrics/Gynecology
- Obstetrics specializing in Endocrinology & Reproductive Health

*For further information, please call or write:*

***Karla Donlin***
***Kristine Cunningham***
*Physician Recruiters*

*1406 Sixth Avenue North*
*St. Cloud, MN 56303*
***1-800-835-6652***

*Not a health care profession shortage area.*

**CENTRACARE Clinic**

### United HealthCare to Quit Medicare Business

United HealthCare, Minnesota's Part B Medicare carrier, has announced that it will not renew its contract to provide Part B Medicare services when the contract expires on September 30, 2000. The decision affects four states where UHC serves as the Part B carrier—Minnesota, Connecticut, Mississippi, and Virginia. UHC is also pulling out of its role as Part A fiscal intermediary in three states and as Region A DMERC administrator.

### Medtronic Signs $100 Million Deal with Healtheon/WebMD

Medtronic Inc. has entered a $100 million agreement with Atlanta-based Healtheon/WebMD Corp. to provide information and advertising on the Internet. Earlier, Medtronic announced it will spend at least $228 million over the next four years to develop an Internet-based system to enable the transmission of information directly from Medtronic implants to patients' physicians, with hardware and software from IBM and Microsoft. Healtheon provides consumer-health-information Web sites and health-related e-commerce services.

### Minnesota Specialty Physicians to Collaborate with Network

Minnesota Specialty Physicians, the state's largest network of independent specialty clinics has announced a partnership with Minnesota Healthcare Network, a network of primary care doctors. The new venture will manage MHN's existing contracts—covering more than 68,000 people—jointly negotiate health plan contracts for 2001 and beyond, and consolidate the groups' administrative functions.

# Rates, Trends & Data



### 1998 Minnesota Health Stats Show Little Change

Heart disease, cancer, and cerebrovascular disease remained the three main causes of death for Minnesotans in 1998, according to the latest "Minnesota Health Statistics," an annual report by the Department of Health's Center for Health Statistics. On an average day 102 people died of these or other causes. Population was up .9 percent—to 4,725,419—births increased by 1.1 percent, deaths increased less than 1 percent, marriages were down about 1 percent, and divorces and annulments were down 2.6 percent. The full report is available on the Web site:www.health.state.mn.us/divs/chs/98annsum.

### Teen Drug Use Higher in Rural Areas

Drug use among adolescents in rural areas is higher than in urban areas, according to a 1999 study by the National Center on Addiction and Substance Abuse at Columbia University. Eighth-graders in rural America are 104 percent more likely to use amphetamines than their urban counterparts, more than 83 percent more likely to use crack cocaine, and 34 percent more likely to smoke marijuana. The report urges the U.S. government to create an antidrug package for rural areas that matches its proposed two-year, $1.6 billion aid plan for Colombia.

### Survey Shows Tobacco Habit Starts in Middle School

In its first national survey on tobacco use among sixth-, seventh-, and eighth-graders, the Centers for Disease Control and Prevention found that one in eight students are trying tobacco products. Although cigarettes were the usual choice, students also reported smoking cigars and bidis and Kreteks—Asian tobacco products with chocolate, mango, or clove fragrances. According to the report, 9.2 percent of students aged 11 to 14 smoke cigarettes, compared with 28.4 percent of high schoolers.


## Minnesota Opportunities

Delacore Resources, also known as *"The Minnesota Recruiter,"* has opportunities in Minnesota for the following types of physicians:

- **Dermatology**
- **Emergency Medicine**
- **Family Practice**
- **General Surgery**
- **Internal Medicine**
- **OB/GYN**
- **Orthopedic Surgery**
- **Pediatrics**
- **Psychiatry**

A detailed practice profile is available, or visit our website at **www.mnrecruiter.com**

*Contact The Minnesota Recruiter confidentially at*

**Delacore Resources**
**1-800-967-2711**
**FAX (320) 587-7252**
**delacore@hutchtel.net**

Clear blue skies, fresh air, wide-open spaces and clean lakes await you. MeritCare Medical Group is seeking talented, energetic physicians to join thriving, diverse practices.

MeritCare Health System is the premiere Health System between Minneapolis and Seattle, MeritCare Medical Group is a 350-physician multi-specialty group with a strong primary care base and MeritCare Hospital is a 354-bed tertiary/trauma hospital. Fargo-Moorhead is a tri-college community of 160,000 with excellent public and parochial schools and a park department that provides activities for all age groups year round.

We are seeking BC/BE physicians in the following specialties:

**Adult Psychiatry**
**Anesthesiology**
**Child/Adolescent Psychiatry**
**Dermatology**
**Family Practice** (Fargo & East Grand Forks, MN)
**General Surgery** (Valley City, ND)
**Hematology/Oncology**
**Interventional Radiology**
**Invasive, non-interventional Cardiology**
**Neonatology**
**Neurology**
**Neurosurgery**
**Obstetrics/Gynecology** (Detroit Lakes, MN)
**Optometry** (Mayville, ND)
**Orthopaedics**
**Otolaryngology**
**Pediatrics**
**Reproductive Endocrinology**
**Rheumatology**

Contact Kathleen Toft, Physician Recruiter, 737 Broadway, Fargo, ND 58123 or call 1-800-437-4010 or fax vitae to 701-234-2316. My e-mail address is kathetoft@meritcare.com or check our web site at www.meritcare.com

**MeritCare Medical Group**
EOE/AA Employer
(not a J-1 waiver opportunity)

# Research & Innovations



### Positive Outlook Contributes to Long Life

Optimists tend to live longer than pessimists, according to a new study published in the *Mayo Clinic Proceedings*. **Mayo Clinic** researchers, including **Toshihiko Maruta, M.D.,** examined the records of 839 Mayo Clinic patients who took the Minnesota Multiphasic Personality Inventory between 1962 and 1965 and then determined whether the patients were still living. Every 10-point increase in the pessimism scale was significantly associated with a 19 percent increase in mortality.

### Defibrillators Can Save Young Lives

A new study led by **Barry Maron, M.D.**, head of cardiovascular research for the **Minneapolis Heart Institute Foundation**, is the first to show that implantable defibrillators are effective in saving the lives of young patients with hypertrophic cardiomyopathy. The disease is associated with a risk of ventricular tachyarrhythmias and sudden death. The retrospective look at 128 patients showed that one in four of them would have died without the implants. Defibrillators have been used for years in elderly people with advanced stages of heart disease. The study was funded by a grant from the **Medtronic Foundation.**

### Mayo Clinic Tests Artificial Liver Machine

The **Mayo Clinic** has treated three patients with a bio-artificial liver machine that filters blood using pig liver cells. The device, called the **HepatAssist,** is intended to be a temporary treatment for patients with liver failure who are waiting for a transplant. Of the three Mayo patients, one lived long enough to receive a transplant, another's liver began functioning on its own, and the third died from a hemorrhage unrelated to the device. The Mayo Clinic is one of 19 sites in the United States and Europe that are collecting data on patients treated by the machine.

### Women with Chest Pain Get Fewer Tests, Have Better Outcomes

**Mayo Clinic** researchers, led by **Veronique Roger, M.D.**, have found that women who go to emergency rooms for chest pain receive less aggressive care than men with similar symptoms. The study, reported in the *Journal of the American Medical Association,* found that men were 27 percent more likely to get noninvasive evaluation and 40 percent more likely to get angiography. In addition, men were 21 percent more likely to have a heart attack or other cardiac event and 23 percent more likely to die. The researchers looked at tests given to 1,306 men and 965 women who went to emergency rooms at three hospitals in Olmsted County from 1985 to 1992.

### Nicotine Patch Is Safer Than Smoking during Pregnancy

**Mayo Clinic** researchers have found nicotine patches may be safe for pregnant women who cannot otherwise quit smoking. The study, published in the *American Journal of Obstetrics & Gynecology*, showed that the patch delivers nicotine more steadily than cigarettes and doesn't expose the fetus to carbon monoxide and other toxins found in cigarettes. The researchers, led by **Paul Ogburn, M.D.,** measured the levels of nicotine and other substances in the bloodstream of 21 pregnant women.

### Nicotine Patches Don't Work for Teen Smokers

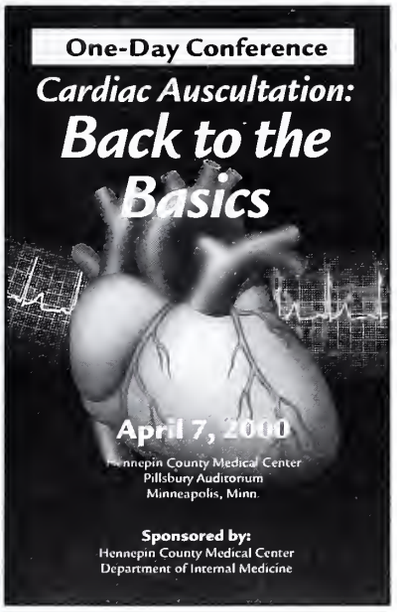
A study published in the *Archives of Pediatric and Adolescent Medicine* shows that only about 5 percent of teenage smokers who used the nicotine patch were nonsmokers after six months, compared with about 25 percent of adults. The researchers, led by **Richard Hurt, M.D.,** director of the **Mayo Clinic's Nicotine Dependence Center** (see profile on page 8), followed 101 youths aged 13 to 17 who had smoked for at least four years and who wore the patches for six weeks.

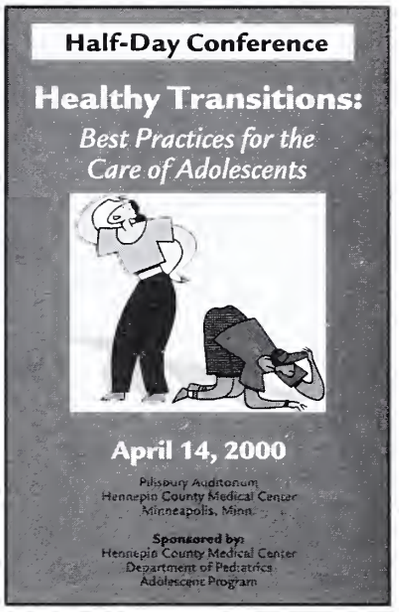
### Regions AIDS Specialist Calls for New Approach to HIV Treatment

**Keith Henry, M.D.**, medical director of the HIV clinic at **Regions Hospital** in St. Paul, has called for a new approach to the treatment and funding of HIV infection. In an article published in *The Annals of Internal Medicine*, Henry argues that the goal of eradicating HIV with aggressive drug therapies conflicts with the goal of maintaining a patient's long-term health. Henry points out that the drugs have failed to cure AIDS, have toxic side effects, and cause the AIDS virus to become resistant to further therapies. Henry recommends a focus on reducing rather than eradicating the virus and more spending on patient education and management.

*Information compiled from the* St. Paul Pioneer Press, *the Minneapolis* Star Tribune, *the Associated Press, and news releases.*

# CME @HCMC




Hennepin County Medical Center (HCMC) is one of the major teaching hospitals in Minnesota. Continuing Medical Education (CME), formerly known as the Office of Academic Affairs, at HCMC was established in 1983.

The mission of HCMC's CME Program is: "to provide organized, planned education activities to help physicians improve delivery of medical care."

## Accreditation

Hennepin County Medical Center is accredited by the Minnesota Medical Association (MMA) to sponsor Continuing Medical Education for physicians.

Hennepin County Medical Center designates hour-per-hour credit hours in category 1 of the Physician's Recognition Award of the American Medical Association.

## For More Information

We would like to hear your comments and suggestions for CME activities!

**Hennepin County Medical Center**
Continuing Medical Education
701 Park Avenue, Mail Code 861-B
Minneapolis, Minnesota 55415-1829

612-347-2075 Fax: 612-904-4210
Toll Free: 888-263-4262
email robin.hoppenrath@co.hennepin.mn.us

## EMS Certification Courses

Emergency Medical Services offers numerous courses throughout the year. To request a listing of classes or a course brochure, please call 612-347-5681. Visit the EMS Website at www.HCMC.org/DEPTS/EM/EMSED

# 2000

**April 7**
**Cardiac Auscultation: Back to the Basics**

**April 14**
**Healthy Transitions: Best Practices for the Care of Adolescents**

**May 19**
**Biological, Chemical & Nuclear Terrorism**

**September 15-16**
**ALSO Course -- Advanced Life Support in Obstetrics**

**October 5-6**
**Annual Forensic Science Seminar**

**November 2-4**
**Annual Orthopaedic Trauma Conference**

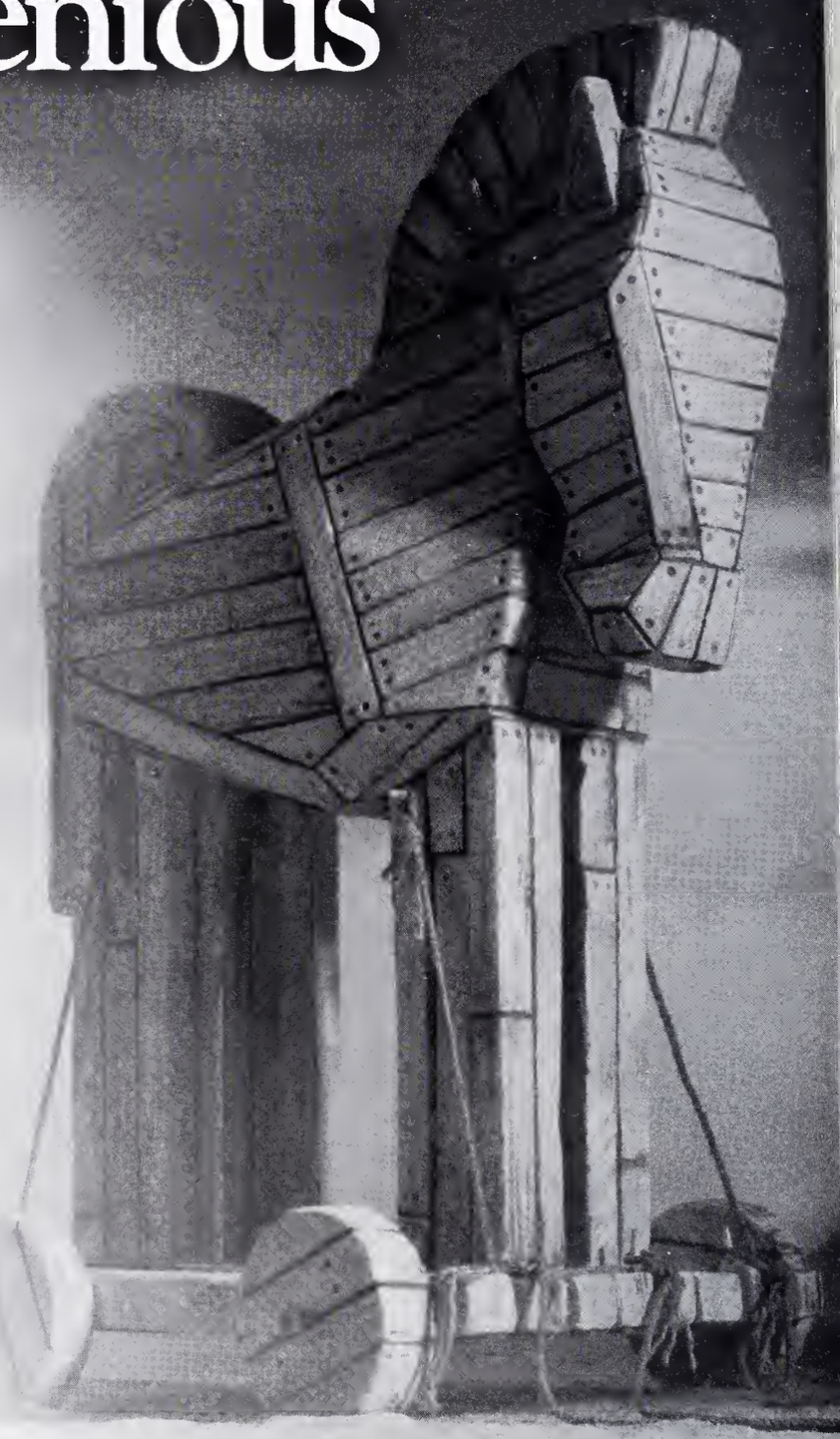
**November 3-4**
**MMRF (Minneapolis Medical Research Foundation)**
**Annual Gala Event and CME Conference**

**November 10**
**Annual Minneapolis-St. Paul Diabetes Forum**

**December 8**
**Annual Family Practice Update**

**To Be Announced**
**Acupuncture Course**
**Annual Contemporary Issues in Dialysis**
**Osteoporosis Conference**

# Ingenious



**What a bright idea.**

A company that houses an entire arsenal of services specifically for healthcare providers. MMIC is now your full service solution, offering you complete liability insurance services as well as employee benefits planning, expert healthcare information systems planning and implementation, even Internet services designed to meet your unique needs. But unlike the Trojan Horse, when you work with MMIC, there are no surprises, just superior services provided by industry experts. Midwest Medical Insurance Company, making your life a little simpler... isn't it about time.

***Call 1-800-328-5532***

***or visit us at www.midmedical.com***

20 Years of Excellence

MMIC

INSURANCE EMPLOYEE BENEFITS CONSULTING INTERNET SERVICES

# Health Care Taxes in Minnesota

## *An Analysis*

The Minnesota Taxpayers Association

**Editor's Note:** *A recently completed Minnesota Taxpayers Association study commissioned by the Minnesota Medical Association and five other organizations found that the state's health care taxes do not follow the principles of good tax policy. Minnesota's health care assessments raise health care costs and premiums. Our taxes are regressive, invisible to taxpayers, borne or paid largely by small employers and individuals, and growing. (This report has not been edited to conform to* Minnesota Medicine *style.)*

This report provides a comprehensive analysis of the health care taxes in Minnesota. It includes an analysis of taxes on the delivery of health care (provider taxes) as well as taxes on health insurance (various insurance premium taxes).

Most of the taxes studied were enacted by the 1992 Legislature as part of a package of reforms generally referred to as MinnesotaCare. These were the provider taxes and the premium tax on HMOs and nonprofit health service plan corporations. Others, like the MA surcharges, MCHA assessments, and the 2% gross premiums tax on private indemnity insurance carriers predate MinnesotaCare. The taxes covered in this report are shown in Table 1.

### *Why a Study?*

In 1992, the specific set of taxes enacted to fund the health care reforms associated with MinnesotaCare were selected because (1) it was thought that the funding should come from within the health care industry, partly because the reforms aimed to reduce uncompensated care costs borne by the industry; (2) taxing the gross receipts of providers would motivate them to control costs and charges; (3) the provider tax would not conflict with the federal law (ERISA) which prohibits state taxation of self-insurers; and (4) Governor Arne Carlson refused to support any new state general fund taxes or tax increases.

The full set of health care taxes, including the older ones, have never been analyzed as a group and have not been evaluated in a comprehensive way against standard principles of good tax policy. This report provides such analysis.

This report is timely. The health care taxes are becoming increasingly controversial and new data collection efforts have identified industry trends toward self-insuring and rapidly rising MCHA assessments that will challenge the current system of state health care financing. Further, surpluses in the state general fund and health care access fund provide an opportunity to "refinance" the health care reform initiatives of the early 1990s.

### *Scope of Report*

This report will (1) review and clarify how Minnesota health care access is currently funded, (2) assess the appropriateness of each tax using generally accepted tax policy principles, and (3) list options for improving how Minnesota finances health care access. It is important to note that this is a report on the financing aspects of health care. It is not a critique of the MinnesotaCare program.

### *The Minnesota Health Care Industry*

The health care industry in Minnesota accounts for $18 billion in public and private sector spending annually.

Certain truths are obvious and central to a clear understanding of health care economics and taxation.

- People pay health care taxes, not entities, public or private, though the flow of health care funds is quite circuitous. Higher taxes or charges imposed at any point in the system eventually fall on households.
- The more invisible health care taxes and charges are to the ultimate consumer, the less stable health care costs are likely to be. The Minnesota Department of Health estimates that only 21% of health care spending takes a direct route from final consumers (health care recipient) to health care providers.

### *Standard Tax Principles Used in Evaluation of Health Care Taxes*

This report uses a widely accepted set of tax principles to evaluate the strengths and weaknesses of the health care

taxes. These principles are:

• **Equity**—relates to various notions of fairness. In tax policy, there are two competing notions of equity, (1) benefits-received, and (2) ability to pay. The benefits-received principle views taxes as payments for benefits and compares both. Where a benefit rationale cannot be justified, the ability-to-pay concept of fairness is generally applied. The ability-to-pay concept of equity takes on two dimensions, (1) horizontal equity, and (2) vertical equity. A tax is said to be horizontally equitable if the tax paid by two or more entities in the same economic circumstances (income, consumption, or wealth, depending on the tax) pay identical tax amounts. Vertical equity looks at the other dimension of fairness—how tax burdens compare across people with different amounts of tax base (usually income).

• **Efficiency**—relates directly to the condition of "economic efficiency." It is important that tax policy not distort private market decisions, unless distortion is an explicit goal.

• **Visibility**—relates to how apparent taxes are to taxpayers. The visibility principle is often overlooked, particularly in legislative settings. The reasons are clear. Taxpayers rarely complain about hidden taxes. But if taxpayers don't know they're paying taxes they can't provide the important citizen oversight presumed by our founding fathers. Taxpayers need to be able to make informed judgments about the cost of government and how their tax burden will change as a result of personal and policy decisions. This principle is fundamental to the notion of accountability.

• **Simplicity**—reduces administrative and compliance costs and breeds an increased sense of fairness, better compliance and more accountability.

• **Stability and adequacy**—means that taxes should raise the required amount of revenue and not fluctuate wildly from year to year, both for the program's sake and the taxpayer's, since taxes are assessed to meet public funding needs.

Table 1

*Health care taxes analyzed in this report*

| Type of Health Care Tax | Disposition | FY2001 Amount ($ thousands) |
|---|---|---|
| **MinnesotaCare Taxes** | | |
| 1.5% hospital tax | HCAF | $41,855 |
| 1.5% surgical center tax | HCAF | 569 |
| 1.5% other health care providers tax | HCAF | 75,657 |
| 1.5% wholesale drug distributor tax | HCAF | 22,695 |
| 1.5% prescription drug use tax | HCAF | 0 |
| 1.0% HMO, CISN, and other non-profit gross premium tax | HCAF | 16,189 |
| Refunds | | (10,806) |
| Subtotal, Net MinnesotaCare Taxes | | 146,159 |
| **Medical Assistance Surcharges** | | |
| 1.56% hospital surcharge (includes special surcharges for HCMC and Fairview-University Hospitals) | General Fund | 78,476 |
| $625 per bed nursing home surcharge (includes the $5,723 per bed special surcharge for county nursing homes) | General Fund | 35,533 |
| 0.6% HMO surcharge | General Fund | 14,120 |
| Subtotal, Medical Assistance Surcharges | | 128,129 |
| **Insurance Taxes and Assessments** | | |
| Insurance gross premium taxes (health only) | General Fund | 23,000 |
| MCHA assessment* | MCHA | 65,000 |
| Subtotal, Insurance Taxes and Assessments | | 88,000 |
| **Grand Total** | | **$362,288** |

Source: Minnesota Department of Revenue, November 1999 forecast.

HCAF—Health Care Access Fund.

*The MCHA (Minnesota Comprehensive Health Association) assessment is for calendar year 2000.

• **Competitiveness**—setting rates without ignoring the tax rates and policies of other states, especially since new information technologies and other advances are reducing the significance of "place" in the conduct of economic activity.

## *Key Findings (Overall System)*

• Health care taxes are paid by people. The Department of Revenue's tax incidence study shows that the final burden of the $362 million in Minnesota health care taxes that will be collected in FY2001 will ultimately fall on Minnesotans.

Table 2

*Distribution of the tax burden for the provider and insurance premium taxes by population decile, 1996*

| Population on Decile | Household Income | As a % of Income | | |
|---|---|---|---|---|
| | | Provider Tax | Insurance Premium Tax | Both Taxes |
| 1 | $6,817 and under | 0.40% | 0.32% | 0.72% |
| 2 | 6,817–11,166 | 0.27% | 0.23% | 0.50% |
| 3 | 11,166–15,828 | 0.23% | 0.22% | 0.45% |
| 4 | 15,828–21,634 | 0.23% | 0.21% | 0.44% |
| 5 | 21,634–27,866 | 0.23% | 0.21% | 0.44% |
| 6 | 27,866–35,486 | 0.21% | 0.19% | 0.40% |
| 7 | 35,486–45,144 | 0.20% | 0.19% | 0.39% |
| 8 | 45,144–57,697 | 0.19% | 0.18% | 0.37% |
| 9 | 57,697–78,618 | 0.17% | 0.17% | 0.34% |
| 10 | 78,618 and over | 0.08% | 0.11% | 0.19% |
| **Total** | **All** | **0.15%** | **0.16%** | **0.31%** |

Source: Unpublished background data from the Minnesota Department of Revenue's Tax Incidence Study 1999.

• Health care taxes are regressive. Table 2 summarizes the conclusions of the Minnesota Department of Revenue regarding the incidence (ultimate burden) of the provider taxes and the long-standing 2% gross premiums tax on indemnity insurance companies across the 10 deciles of Minnesota population in 1996.

• Health care taxes boost health care costs. Taxes boost the cost of health care and consequently health insurance premiums for consumers. The Minnesota Council of Health Plans estimates that in 2001, the combined effect of the provider tax, the MA surcharges, the MCHA assessments, and the premiums taxes on HMOs and other insurers will boost premiums by 5.65% for HMO coverage, and by 6.05% for private indemnity coverage. (See the figure, page 46.)

## *Summary of Provider Tax Evaluations*

### Fairness Conclusion

• According to the latest preliminary estimates, from 1992 to 1996, providers paid roughly $100 million more in provider taxes than they saved in uncompensated care costs. This means that the provider tax has so far failed the benefits-received principle, at least for hospitals and likely for most other providers given their lower rates of uncompensated care.

• The provider tax is not horizontally equitable, because of Medicare, Medicaid, and other exemptions. These exemptions mean that providers with equal revenues may not pay equal taxes.

• The provider tax is not vertically equitable. It falls more heavily on lower-income taxpayers than on those with higher incomes and therefore is regressive. Lower-income taxpayers pay as much as five times more in provider taxes as a percentage of their income than taxpayers with the highest income.

### Efficiency Conclusion

• The provider tax is generally allocatively efficient, with the possible exception of discouraging providers from locating in Minnesota.

• The provider tax has no significant administrative efficiency problems compared with all other taxes for most providers, but for providers that also pay the Medical Assistance surcharges (hospitals, HMOs, and nursing homes), the tax is administratively complex, due to tax bases and rates that are different from the surcharges.

### Visibility Conclusion

• The provider tax fails the tax principle of visibility because it is not at all visible for most health care services. It is generally not itemized in fees or in insurance reimbursement schedules, leaving many Minnesotans in the dark even as to its existence.

### Simplicity Conclusion

• The provider tax is relatively simple.

### Adequacy and Stability Conclusion

• The provider tax is stable, raising more revenue as health care expenses rise.

• The provider tax raises more money than needed for the programs it supports.

### Competitive Conclusion

• Because competition in the medical industry is based primarily on reputation and not price, the provider tax generally does not negatively affect the competitiveness of Minnesota's providers.

• There are competitive issues with providers near other states' borders, especially when the medical assistance surcharges are considered, too.

*continued*

## *Summary of Wholesale Drug Distributor Tax Evaluations**

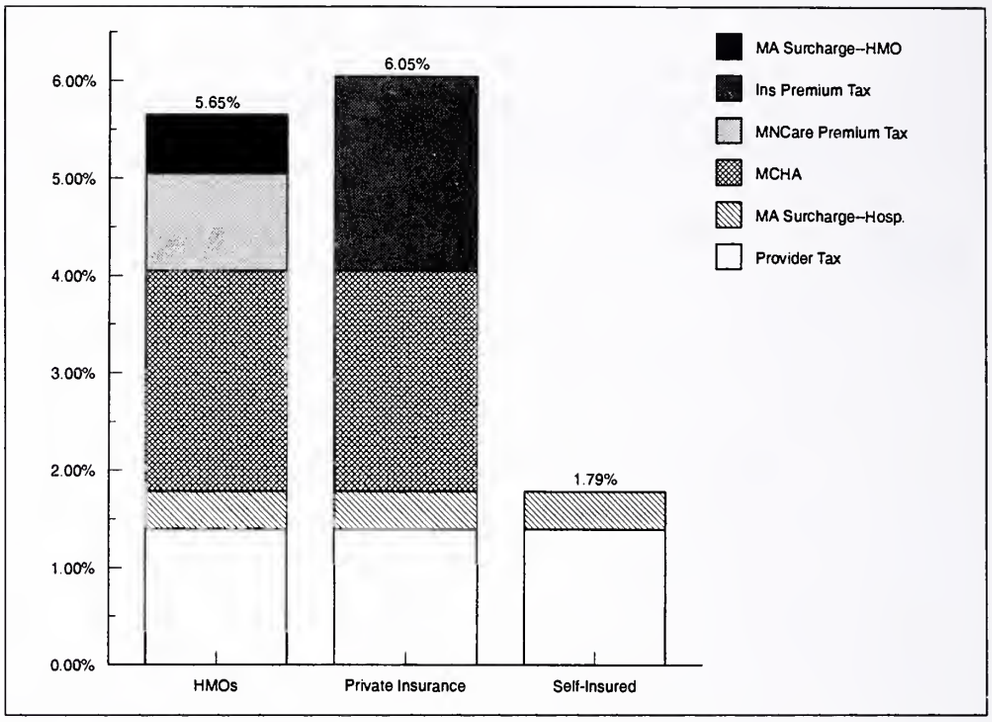
### Fairness Conclusion

• The wholesale drug distributor tax is not equitable under the benefits-received principle because it does not provide, nor evidently was ever intended to provide, benefits either to consumers or distributors in proportion to the revenue it raises.

• The wholesale drug distributor tax is not horizontally equitable due to the unequal enforcement of the use tax on out-of-state wholesalers, and wholesalers with federal contracts.

### Competitive Conclusion

• The wholesale drug distributor tax puts Minnesota wholesalers at a competitive disadvantage.




Figure—Minnesota health care taxes as a percent of health plan premiums by type of health plan, 2001.

## *Summary of Medical Assistance Surcharge Evaluations**

### Fairness Conclusion

• Medical Assistance surcharges are inequitable under the benefits-received principle, even though they were enacted under the premise of equitable benefits. Federal regulations now prohibit providers from receiving benefits in proportion to the tax.

### Efficiency Conclusion

• Medical assistance surcharges had no significant administrative efficiency problems compared with all other taxes before the enactment of the provider tax, but are now administratively complex due to tax bases and rates which are different from the provider tax.

### Competitive Conclusion

• Medical assistance surcharges raise competitive issues when combined with the provider tax, especially in border communities.

## *Summary of Health Insurance Premium Taxes and MCHA Assessment Evaluations*

### Fairness Conclusion

• The insurance premium taxes and MCHA assessments are not horizontally equitable. Health plans with the same amount of tax base pay different amounts of premium tax. The horizontal tax disparities are most extreme between indemnity carriers, who currently pay a total of 4.1% in insurance premium taxes and MCHA assessments, and self-insurers, who pay no premium taxes (see Table 3).

• Because larger employers tend to self-insure, the initial impact of health insurance premium taxes and MCHA assessments tends to fall increasingly on small employers, the self-employed, and individual policyholders.

• Premium taxes are not vertically equitable. All premium taxes are paid by consumers. According to the Minnesota Department of Revenue, the insurance gross premium tax is regressive in that it falls most heavily on lower income families. MCHA assessments, the 1% HMO premium tax, and the 0.6% MA surcharge on HMO premiums are also assumed to be regressive.

### Efficiency Conclusion

• Current health insurance premium taxes and MCHA assessments create market distortions, and are therefore not efficient. The distortions are most severe between indemnity insurers and self-insurers.

### Visibility Conclusion

• Health insurance taxes are not at all visible to employers and other purchasers. They are not itemized in premiums, and thus like the provider tax, leave many Minnesotans in the dark even as to their existence.

### Simplicity Conclusion

• There are no unusual administrative or taxpayer complexities associated with current insurance premium taxes and MCHA assessments.

### Stability and Adequacy Conclusion

• Revenues from the 2% gross premiums tax on

*(Similar to the provider tax above, but with these additional considerations)

Table 3

*Statutory tax rates on health plans, years 2000–2002*

| Type of Company | Gross Premiums Rate | MCHA Assessment Rate* | Medical Assistance Surcharges | Total Rate |
|---|---|---|---|---|
| Private indemnity insurers | | | | |
| 2000 | 2% | 2.10% | 0% | 4.10% |
| 2001 | 2% | 2.26% | 0% | 4.26% |
| 2002 | 2% | 2.43% | 0% | 4.43% |
| HMOs and other non-profits | | | | |
| 2000 | 0% | 2.10% | 0.6% | 2.70% |
| 2001 | 1% | 2.26% | 0.6% | 3.86% |
| 2002 | 1% | 2.43% | 0.6% | 4.03% |
| Self-insurers | | | | |
| 2000 | 0% | 0% | 0% | 0% |
| 2001 | 0% | 0% | 0% | 0% |
| 2002 | 0% | 0% | 0% | 0% |

*The MCHA assessment rates for 2001 and 2002 are MTA projections based on the average annual growth of assessments and premium bases from 1990–2000, provided to MTA by MCHA.

indemnity carriers, the 1% premium tax, and the 0.6% surcharge on HMOs and non-profit carriers will be fairly stable and predictable. Health insurance premium taxes rise to reflect increases in health care costs, but decline as the growth of self-insurance continues to erode the premium tax bases.

• Revenues from the 2% gross premiums tax and the 0.6% surcharge on HMOs are general fund revenues. Because they make up such a small percentage of the general fund, their adequacy cannot be analyzed.

• If the trend to self-insure continues, revenues from all health insurance premium taxes will fall as a percentage of total tax collections.

• MCHA assessments are neither stable, nor sustainable. Without reforms, rising assessments and diminishing taxable premiums will continue to push the MCHA assessment rate up without limit, causing heavier burdens for many smaller employers who can't self-insure, and others who purchase health insurance in the market.

### Competitive Conclusion

• Premium taxes are not competitive. A growing number of out-of-state insurance companies enjoy a competitive advantage relative to Minnesota companies based on lower premium tax rates and MCHA assessments. Though these companies must pay Minnesota's 2% rate on business written in Minnesota, their home state's lower rate can enable them to offer lower-priced products in Minnesota.

• Minnesota-based companies were at a competitive disadvantage in at least 12 states as of the end of 1998, based on lower gross premiums tax rates in those states than our 2%.

• The MCHA assessment roughly doubles the gross premiums tax for insured health plans, further reducing the competitiveness of Minnesota-based insurance companies.

## *Options for Reform*

Minnesota's system for financing its health care system has some serious flaws. The fact that a major public program is financed nearly invisibly is its most serious shortcoming. Horizontal inequities from taxing competing providers at different rates are also a major concern, especially for those companies subject to the MCHA assessment. Based on the evaluations of the MinnesotaCare and insurance taxes in this report, we provide the following options for reform:

• Repeal all health care related taxes. The benefits of the programs funded by these taxes are enjoyed by all Minnesotans, but the funding itself is invisible to most taxpayers. It is not yet possible to measure whether the benefits Minnesotans have enjoyed match the costs of the taxes they are paying. If every Minnesotan benefits from the health care taxes through lowered costs of uncompensated care and increased insurance coverage and preventive care for the newly insured, the tax should be a more direct, broad-based tax rather than the hodgepodge of indirect health care taxes.

Payments to providers for previously uninsured patients have failed to offset the MinnesotaCare tax burdens on providers, which are now simply increasing the cost of health care. Revisions to federal law have negated many of the key points that encouraged the enactment of the Medical Assistance surcharges. The insurance taxes have created horizontal inequities. The simplest solution would be to repeal all of the taxes. This would require an estimated $362 million per year in total replacement revenues.

• Repeal all provider taxes, including the wholesale drug distributor tax, and repeal all MA surcharges. This would reduce revenues to the Health Care Access Fund (HCAF) in FY2001 by approximately $146 million in

the provider taxes, and $128 million in general fund revenue for the surcharges. Revenue replacement options are listed below.

• Repeal all health insurance premium taxes, including MCHA assessments and the 1% and 0.6% taxes on HMOs and other non-profit plans. This would solve the most pressing problems with these taxes, which are the horizontal inequity among the various types of insurers and the rapidly rising MCHA assessments relative to the base. It would require replacement revenue of approximately $118 million per year ($23 million for the 2% gross premium tax, $65 million for MCHA, $16 million for the 1% HMO tax, and $14 million for the 0.6% MA surcharge). As long as ERISA exists in its current form, this is the only way to level the playing field and remove the tax bias to self-insure.

• Reduce the health insurance portion of the gross premium tax rate on private indemnity companies to equal that paid by HMOs. The rate for HMOs is 0.6% in 2000 (for the surcharge only) and under current law will be 1.6% starting 1/1/2001. This change would reduce general fund receipts by about $16 million in FY2000 and $5 million in FY2001.

• Reinstate the tax offset of the MCHA assessment against the gross premiums tax. There was an offset allowed between 1976 and 1987, when only indemnity insurance carriers paid the MCHA assessment. The fiscal impact of this is likely to be about $65 million per year. This would constitute general fund support for MCHA.

## *Potential Funding Sources*

• Use HCAF and general fund surpluses. The HCAF reserves are estimated to be $208.4 million for fiscal year 2001, including the $150 million federal welfare reform contingency reserve that has been shown by events to be unnecessary. That amount provides more than one full year of replacement revenue for the MinnesotaCare program ($194.4 million for FY2001) and almost enough for all uses of the HCAF ($238 million for the same year). The Finance Department in its November 1999 forecast estimates that there will be a $500 million annual structural surplus in the general fund.

• Use ongoing general fund tobacco settlement money to fund MinnesotaCare. This would provide an estimated $115 million per year for the 2000–01 biennium, and over $330 million per year in the 2002–03 biennium, under current law.

• Subject medical services to the general sales tax. A sales tax rate between 1%–1.5% would raise revenues comparable to the provider tax and Medical Assistance surcharges, and a 2% rate would raise approximately enough revenue to replace all health care taxes. However, no other state in the nation now subjects medical services to the sales tax. **MM**

*The Minnesota Taxpayers Association is a non-profit, nonpartisan member-supported organization dedicat-*


**Teaching, Research, & Patient Care**

**It's our mission.**

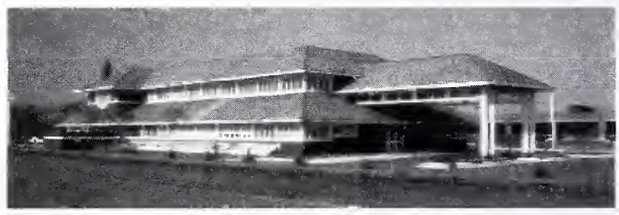
Hennepin Faculty Associates (HFA) is an academic multispecialty group comprised of more than 250 physicians. HFA physicians teach students, residents, and fellows at HCMC, where they also provide and oversee care, and pursue research through the Minneapolis Medical Research Foundation.

HFA also operates independent clinics, including two multispecialty clinics that are staffed by numerous specialists and subspecialists.

HFA clinics are JCAHO-accredited.
Joint Commission on Accreditation of Healthcare Organizations

**Hennepin Faculty Associates**
914 South 8th Street, Minneapolis, MN 55404
**(612) 347-DOCS**





*St. Cloud, Minnesota*—St. Cloud Hospital/Mayo Family Practice Residency Program, a successful, community-based, unopposed, 4-4-4 Family Practice Residency program sponsored by Mayo Graduate School of Medicine seeks a full-time BC physician/faculty member to join its experienced faculty. As a member of this team, your responsibilities will include 50 per cent teaching and resident supervision and 50 per cent direct patient care, including inpatient, outpatient, and maternity care. We offer a highly competitive salary commensurate with training and experience and benefits including relocation allowance, four weeks of paid vacation, and two weeks of CME. This program emphasizes doctor-patient relationships, rural practice preparation, procedural training, obstetrical care, evidence-based medicine and an adult learner model. St. Cloud is a growing, family-oriented college town of 100,000 conveniently located between Minneapolis/St. Paul and prime Minnesota lake areas. Please contact George Schoephoerster, M.D., at 800/575-2982, fax CV, 320/240-3165, or e-mail: schoephoersterg@centracare.com

**St.Cloud Hospital / Mayo Family Practice Residency**

*ed to the advancement of efficient, economical government. Since 1926, its mission has been to educate and inform Minnesotans about sound fiscal policy; to provide state and local policymakers with objective, nonpartisan research about the impacts of tax and spending policies; and to advocate for the adoption of rational public fiscal policy.*

*Dan Salomone is executive director; Lynn Reed is research director; and Linda Edstrom is executive secretary.*

*For more information about the association or to inquire about membership, contact us by phone: 651/224-7477 or 800/322-8297 (TAXS), fax: 651/224-1209, e-mail: policy@mntax.org or question@mntax.org; or Web: www.mntax.org.*

***Acknowledgments***

*This study was requested and financed by a broad spectrum of health care providers and employer groups. Those providing funding for this study (in alphabetical order) are: Insurance Federation of Minnesota, Minnesota Business Partnership, Minnesota Chamber of Commerce, Minnesota Council of Health Plans, Minnesota Hospital and Healthcare Partnership, and Minnesota Medical Association.*

*In addition to their financial support, representatives of these groups provided invaluable insight into the health care industry and how the health care taxes affect their particular segment of the industry. Other groups also contributing advice and information were representatives of Minnesota's dentists, pharmacies, and wholesale drug distributors.*

*We also wish to thank the Minnesota Departments of Revenue, Finance, Health, and Human Services, and the Minnesota Comprehensive Health Association for timely data, interpretation of that data, and helpful comments from the perspective of those charged with administering these programs and taxes.*

*Without the advice of these groups, the value of this study would have been greatly diminished. Nevertheless, the Minnesota Taxpayers Association is solely responsible for its contents. The opinions expressed in this paper are ours and do not necessarily reflect the views of those above. Any errors of fact or judgment in this study belong exclusively to Minnesota Taxpayers Association.*

Hubert H. Humphrey Cancer Center www.hhhcancercenter.com
*A Member of North Memorial Health Care*

The Hubert H. Humphrey Cancer Center is seeking a tenth oncologist to add to its growing suburban Minneapolis practice. HHHCC supplies hematology and oncology consultative services to three Minneapolis hospitals and outreach services in rural Minnesota and Wisconsin. We offer active clinical research protocols through GOG, pharmaceutical companies, and Metro-MN CCOP (ECOG, NSABP, RTOG, MDA, North Central Cancer Treatment Group).

We offer an excellent benefits package that includes a competitive salary; health, dental, life, disability and malpractice insurance; vacation/CME; generous 401k retirement plan, relocation expense and more.

Whether you are looking for a cosmopolitan urban environment or a clean, safe suburban neighborhood, Minneapolis is nationally recognized as an outstanding place to live. We have award-winning school systems, and an abundance of lakes and parks, affordable housing and a variety of year round activities.

***Mail, Fax, or E-mail Cover Letter and C.V. to:***

Mark A. Peterson, Physician Recruiter
North Memorial Health Care
3300 Oakdale Avenue North
Robbinsdale, MN 55422

**Phone: (800) 275-4790 or (612) 520-1336 Fax: (612) 520-5997**
**E-mail: mark.peterson@northmemorial.com**

Picture your future with ACMC...
We think you'll fit right in!

Imagine yourself practicing in a 100+ multi-specialty group providing primary and secondary care in over 23 specialties in a network of 10 clinics in Southwestern and West Central Minnesota. You would be surrounded by some of the finest lakes and recreational activities in the state with the comforts of a thriving community — outstanding schools, a variety of churches and a healthy business community.

ACMC offers a secure practice among a well-established and respected physician owned group with a very competitive financial and benefits package.

Positions now available for BE/BC physicians in:

**Family Practice • Gastroenterology • General Surgery**
**Internal Medicine • OB/GYN • Oncology**
**Orthopedic Surgery • Pediatrics**

Please contact:
**Kari Bredberg, Physician Recruitment**
**(320) 231-6366 • karib@acmc.com**
Affiliated Community Medical Centers
101 Willmar Avenue SW • Willmar, MN 56201
www.acmc.com

Affiliated COMMUNITY Medical Centers, P.A.

# *A Calendar of Continuing Medical Education Courses*

*Provided as a service of the MMA Committee on Accreditation and CME.* For assistance with scheduling meetings or for information on future medical meetings and CME courses, please contact the MMA office: 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; 612/378-1875. For a complete listing of our calendar, visit the MMA Web site at www.mnmed.org. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

## MARCH 2000

Mar. 6-10 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Mar. 9 **AMA Internet Health Road Show: Using the Internet for Better Health Care** American Medical Association; RiverCentre, St. Paul, MN. CONTACT: Tricia Murdoch, American Medical Association, 515 N. State Street, Chicago, IL 60610; 909/558-7252.

Mar. 9 **Family Medicine** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Marilyn Horstman, HealthPartners, Continuing Medical Education, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.

Mar. 17 **Women's & Children's Health Conference** St. Mary's/Duluth Clinic Health System; Duluth Entertainment Convention Center, Duluth, MN. CONTACT: Catherine Koski, Medical Education Coordinator, 400 East Third Street: Maildrop 5AV2ME, Duluth, MN 55805; 218/725-3854.

Mar. 24 **Reclaiming the Soul of Medicine: A Practical Approach to Spirituality and Patient Care** Minnesota Medicial Association; Augsburg College, Minneapolis, MN. CONTACT: Augsburg College, Department of Continuing Studies, CB #47, 2211 Riverside Avenue, Minneapolis, MN 55454; 612/330-1406.

Mar. 27-31 **Selected Topics in Internal Medicine** Mayo Foundation; The Westin Resort, Hilton Head Island, SC. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

## APRIL 2000

Apr. 3-7 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Apr. 6-8 **23rd Annual Spring CME** American Academy of Physician Assistants with Minnesota Academy of Physician Assistants; Minneapolis Marriott SW, Minnetonka, MN. CONTACT: Deb Sanders, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413; 612/331-8598.

Apr. 7 **Cardiac Auscultation: Back to the Basics** Hennepin County Medical Center; Hennepin County Medical Center–Pillsbury Auditorium, Minneapolis, MN. CONTACT: Robin Hoppenrath, HCMC Continuing Medical Education, 701 Park Avenue, Mail Code 861-B, Minneapolis, MN 55415; 612/337-7128.

Apr. 7 **Cardiac Arrhythmias** University of Minnesota; Earle Brown Heritage Center, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

Apr. 7-8 **Pediatric Update** Institute for Research and Education HealthSystem Minnesota; Naegele Auditorium, Park Nicollet Clinic, St. Louis Park, MN. CONTACT: Mary White, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 612/993-3531.

## MMA-Accredited CME Sponsors

The Minnesota Medical Association is the accrediting agency for Minnesota institutions that regularly sponsor continuing medical education activities for local physicians. Accreditation gives CME sponsors responsibility for conducting high-quality CME programs and for designating credit for CME activities. CME programs must comply with the MMA's "Essentials for the Accreditation of Sponsors of Continuing Medical Education" and the ACCME's "Standards for Commercial Support of CME" and "Standards for Enduring Materials."

The MMA, through the Committee on Accreditation and CME, has granted continued accreditation to

- Children's Hospitals and Clinics, St. Paul/Minneapolis
- HealthEast Care System, St. Paul
- North Memorial Health Care, Robbinsdale
- Virginia Regional Medical Center, Virginia

Provisional accreditation following an initial survey has been granted to

- Anoka Metro Regional Treatment Center, Anoka

For more information on the MMA accreditation program, please call Jane Phillip at the MMA, 612/378-1875 or 800/DIAL-MMA, or visit the MMA's Web site at [www.mnmed.org/ppe/accred.html].

Apr. 8 **Clinical Gait Analysis** HealthPartners Institute for Medical Education with Gillette Children's Specialty Healthcare; Minnesota History Center, Minneapolis, MN. CONTACT: Marilyn Horstman, HealthPartners, Continuing Medical Education, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.

Apr. 12-15 **Gait and Clinical Movement Analysis Society** Mayo Foundation; Mayo Foundation, Rochester, MN. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Apr. 13-14 **Spring Refresher** Minnesota Academy of Family Physicians; Radisson Hotel, St. Paul, MN. CONTACT: Minnesota Academy of Family Physicians, 600 S. Highway 169, Suite 1680, St. Louis Park, MN 55426; 612/542-0130 or 800/999-8198.

Apr. 13-15 **Upper Extremity Trauma: New Directions for the 21st Century** Mayo Foundation; Pointe Hilton Resort at Squaw-Peak, Phoenix, AZ. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Apr. 14 **Healthy Transitions: Best Practices for the Care of Adolescents** Hennepin County Medical Center and Adolescent Healthcare Coalition; Pillsbury Auditorium, Hennepin County Medical Center, Minneapolis, MN. CONTACT: Ann Samways, Hennepin County Medical Center, Continuing Medical Education, 701 Park Avenue, Mail Code 861B, Minneapolis, MN 55415-1829; 612/347-2078.

Apr. 14-15 **Annual Ophthalmology Course** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

Apr. 27-28 **OB/Gyn Update** HealthPartners Institute for Medical Education; Doubletree Hotel, Bloomington, MN. CONTACT: Marilyn Horstman, HealthPartners, Continuing Medical Education, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.

Apr. 28-29 **Annual Meeting of the North Central Chapter Infectious Diseases Society of America** North Central Chapter Infectious Diseases Society of America; Accreditation Sponsor: University of Minnesota; Sheraton Inn Airport Minneapolis/St. Paul, MN. CONTACT: Margaret L. Simpson, M.D., HCMC, 701 Park Avenue, Minneapolis, MN 55415-1829; 612/347-2981 or Mary Majerus, 1707 75th Street NW, Rochester, MN 55901; 507/284-3989.

Apr. 29 **Minnesota Society of Pathologsists Spring Seminar 2000 and John I. Coe Symposium** Minnesota Medical Association with Minnesota Society of Pathologists; Pillsbury Auditorium, Hennepin County Medical Center,

North Memorial Health Care®

*An Organization of Health Care Professionals*

*North Memorial is an independent, full-service facility located in the northwest Twin Cities with more than 700 physicians in more than 40 specialties. We are known as the trauma center in the region with other notable programs including the Hubert H. Humphrey Cancer Center, North Heart Center, North Rehabilitation Center, and the Women's and Children's Center. We also strongly promote physician practice opportunities within our associated clinics, including those that are independently owned, joint ventures and hospital owned. Which means you can choose from large or small and multi or single specialty practice options in metro, suburban or rural locations. North Memorial offers very competitive salaries and excellent fringe benefits. Sounds like the perfect job, doesn't it?*

*Positions now available for BE/BC physicians in:*

- Family Practice
- OB/GYN
- Internal Medicine
- Gastroenterology
- Hematology/Oncology
- Emergency Medicine
- Pediatrics
- Maternal Fetal Medicine
- Urgent Care

For consideration to be a part of our team please mail, fax, or e-mail cover letter and C.V. to:

Mark A. Peterson, Physician Recruiter
North Memorial Health Care
3300 Oakdale Avenue North
Robbinsdale, MN 55422
Phone: (800) 275-4790 or (612) 520-1336
Fax: (612) 520-5997
E-mail: mark.peterson@northmemorial.com



Introducing the
# Thermal Brewing System
from US Offfice Products and MMBR

# "Coffee, anyone?"

**Enjoy fresh great-tasting coffee all day long. Here are a few reasons to consider adding the thermal brewing system and the US Office Products coffee service to your clinic:**

CALL 651/688-9384

TODAY FOR MORE

INFORMATION ON HOW TO

GET GREAT-TASTING

COFFEE IN YOUR CLINIC'S

BREAKROOM TOMORROW.

ASK FOR ANY OF

THESE MMA ACCOUNT

REPRESENTATIVES:

ERIC WICKAM,

MARIE CHRISTIANSON,

OR JIM CHRISTIANSON.

- ☑ Choose from an extensive line of excellent coffees ranging from as low a **4¢ per cup** to 12-13¢ per cup (for Starbucks). This offer provides MMBR Members special pricing lower than the already low pricing given any other US Office Products customers on coffee and related breakroom products.
- ☑ The patented thermal carafes provide hot fresh coffee for 12+ hours without using burners or additional heating.
  - No burnt-tasting coffee
  - No wasted, thrown-away coffee
  - No burners left on overnight
- ☑ Qualifying practices will receive a free coffee tasting and a free pack of Starbucks coffee.
- ☑ Great breakroom products when you need them; order your coffee over the phone or the internet and enjoy it in your breakroom tomorrow.

US Office Products℠

MMBR
Minnesota Medical Business Resources
Owned By MMA & HMS

Minneapolis, MN. CONTACT: Robyn Lampright, Minnesota Society of Pathologsits, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/362-3736 or 800/342-5662.

MAY 2000

May 1-5 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

May 2-5 **7th International Surgical Pathology Symposium** Mayo Foundation; The Queen Elizabeth, Montreal, Quebec, Canada. CONTACT: Registrar, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

May 6-7 **Behavioral Pediatrics for Primary Care** Children's Hospitals and Clinics; Madden's Resort, Brainerd, MN. CONTACT: Betsy Julius, Medical Education, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/813-5884.

May 8-12 **Family Practice Review: Update 2000** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

May 12 **16th Annual Heart Conference** St. Mary's/Duluth Clinic Health System; Duluth Entertainment Convention Center, Duluth, MN. CONTACT: Diane Torvick, 400 East Third Street, Maildrop 5AV2ME, Duluth, MN 55805; 218/786-3838.

May 12 **Burn Conference** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Marilyn Horstman, HealthPartners, Continuing Medical Education, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.

May 19 **Ethics and the Patient Experience in Clinical Research** Institute for Research and Education HealthSystem Minnesota; Park Nicollet Clinic, Naegele Auditoruim, St. Louis Park, MN. CONTACT: Amie Reynolds, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN, 55416; 612/993-3538.

May 19 **Biological, Chemical, and Nuclear Terrorism** Hennepin County Medical Center and Minnesota Department of Health, Sheraton Inn Airport, Bloomington, MN. CONTACT: Carl Hornfeldt, Hennepin County Medical Center, Continuing Medical Education, 701 Park Avenue, Mail Code 861B, Minneapolis, MN 55415-1829; 612/347-2108.

May 19-21 **Sixth International Symposium on MPS and Related Diseases** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.




**Continuing Medical Education**

sponsored by Allina Health System

**April 2000**

**10 & 11** **Advanced Trauma Life Support (ATLS)**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: United Hospital Conference Center, St. Paul

**12** **Advanced Diabetes Management: Complications & Trends**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: United Hospital, St. Paul

**May 2000**

**5** **1st Annual Vascular and Echocardiography Conference**
PRESENTED BY: Minneapolis Heart Institute
LOCATION: Airport Hilton, Bloomington

**23 or 24** **Strengthening Professional Nursing Practice for Excellence in Care**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Earle Brown Heritage Center, Brooklyn Center

**September 2000**

**15** **Obsessive-Compulsive Disorders (OCD) in Adolescents**
PRESENTED BY: Allina Behavioral Health
LOCATION: United Hospital, St. Paul

**18 & 19** **Advanced Trauma Life Support (ATLS)**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: United Hospital Conference Center, St. Paul

**October 2000**

**13** **Minnesota and the Aging Driver: What are Your Options as a Professional?**
LOCATION: Earle Brown Heritage Center, Brooklyn Center

**26 & 27** **2000 Front Line Neurology Symposium**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: DoubleTree Hotel, by Mall of America, Bloomington

**For more information contact:**
Allina Education and Research Administration at (612)992-2424

ALLINA HEALTH SYSTEM

© 1999 Allina Health System

**Visit the Allina CME Calendar at http://www.allina.com**

May 22-26 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

JUNE 2000

June 2-3 **North Central Neonatology Issues Conference** University of Minnesota; Osthoff Resort, Elkhart Lake, WI. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

June 7-9 **64th Annual Course: Advances in Trauma and Critical Care Surgery** Department of Surgery, University of Minnesota Medical School; Ted Mann Concert Hall, University of Minnesota, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

June 8-10 **Practical Diagnostic Hematopathology: Non-neoplastic Hematologic Diseases with Emphasis on Red Blood Cell Disorders Conference, Honoring Virgil F. Fairbanks, M.D.** Mayo Foundation; Mayo Foundation, Rochester, MN. CONTACT: Registrar, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

June 15 **2000 Brain Injury Conference—Maximizing Outcomes: The Spectrum of Prevention** Mayo Continuing Nursing Education; Mayo Clinic, Rochester, MN. CONTACT: Mayo Continuing Nursing Education, Eisenberg S-41, 200 First Street SW, Rochester, MN 55905; 800/545-0357.

June 19-23 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

June 22-24 **Topics and Advances in Pediatrics** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

JULY 2000

July 10-14 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

July 16-22 **Mayo Clinic Internal Medicine Certification and Recertification Board Reviews 2000** Mayo Foundation; Mayo Civic Center, Rochester, MN. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

*First Call Physicians, Inc.*
*A Locum Tenens Service*
*500 Eighth Ave. S.*
*Buffalo, MN 55313*

**Clinics/Hospital** | **Physicians**

*Locums Coverage*
*=*
*Revenue*

- Patients falling through the gaps?
- Physician burn-out or illness?
- Shortage of physicians?

- Earn more with less time.
- No administrative headaches.
- Malpractice premium paid.

*Experience, Service, Honesty*
*Call (metro) 682-3852*
*(toll free) 888-682-3852*

*(You'll be glad you did!)*

Multicare Associates of the Twin Cities, a multispecialty/multi-location clinic, located in the northern suburbs of Minneapolis/St. Paul, has available positions for BC/BE physicians in the following departments:

**Family Practice**

**OB/GYN**

Excellent salary/benefits package includes paid insurance, flexible benefits plan, 401K, profit sharing, continuing medical education. Shareholder status potential after one year.

Contact Jeannine Schlottman
Administrator
7675 Madison St. NE
Fridley, MN 55432
612/785-3338

MULTICARE ASSOCIATES OF THE TWIN CITIES

**Physician Employment Opportunities Available at**
**Winona Clinic, Ltd.**

**Family Practice**
**Internal Medicine**
**Orthopedic Surgery**
**Pediatrics**

Our staff of 30+ medical providers is looking forward to welcoming you as you begin your practice at this thriving, independent, physician-owned multi-specialty clinic, located in a family-oriented community situated along the Mississippi River in the beautiful bluff country of southeastern MN.

For additional information, contact:
Administrator
Winona Clinic, Ltd.
420 East Sarnia Street
Winona, MN 55987
507-457-7722
fax 507-457-7672

# MEDSTAT

SPECIALIZED MEDICAL TRANSPORTATION

***"A VITAL LINK BETWEEN PATIENT AND PHYSICIAN."***

**DEDICATED TO ASSISTING**

**THE MEDICAL COMMUNITY**

**IN THE PROVISION OF**

**OPTIMAL PATIENT CARE**

**AND CLIENT SERVICES.**

Much more than a courier service, MEDSTAT can meet the unique needs of the medical community. MEDSTAT's relationship with MMBR allows MMA members and their clinics to receive medical transportation rates that are generally below that of traditional transportation companies.

## MEDSTAT is a unique transportation system that can provide you with the following:

- Medical interoffice transport
  PATIENT RECORDS, FILMS, OFFICE CORRESPONDENCE, ETC.
- Laboratory specimen pick up and delivery
- Blood transport services
- Medical distribution
- Medical supply pick up and delivery
- Medical vendor/medical provider transport
- Pharmacy distribution
  RETAIL, WHOLESALE, COMMERCIAL AND INTRAVENOUS
- Home health care/patient interactive pick up and delivery
- Limited on-demand services

MEDSTAT

SPECIALIZED MEDICAL TRANSPORTATION

***MEDSTAT SYSTEMS, INC.***
5155 East River Road, Suite 407
Fridley, MN 55421
Office: 612/586-8146
Toll free: 888/234-3618
Fax: 612/586-8147
email: vitallink@earthlink.net
www.medstatsystems.com

MMBR
MINNESOTA MEDICAL BUSINESS RESOURCES
OWNED BY MMA & HMS

**Minnesota Medical Business Resources**
3433 Broadway Street NE, Suite 395
Minneapolis, MN 55413
612/623-2860
e-mail: mmbr@mnmed.org
internet: mnmed.org/mmbr

# Wouldn't you like a LOW-COST employee benefit?




**MMBR** has partnered with **IBM Mid America Employees Federal Credit Union** — one of the largest and most successful credit unions in the state — specifically for the benefit of your medical practice.

- IBM Mid America is driven by a mission of providing **high-quality service** — 98% of its members say the credit union either meets or exceeds their service expectations.*
- Some experts estimate that credit union membership can save the average American family **$400 to $500** a year.
- The credit union emphasizes **high savings rates, low loan rates,** minimal fees and convenient access through a combination of branch offices and state-of-the-art technology.

*To find out how the valuable benefit of credit union membership can be offered to your employees at **no cost** to you, call MMBR at **1-800-298-6627** or **612/623-2860.***

## Are you interested in an employee benefit that:

- Adds **real value** to your benefits package?
- Can help increase **employee retention?**
- Requires **no investment** of your administrative time?
- Is **easy to implement,** with no hassle?

* 1999 Service Quality Survey

IBM **MID AMERICA** EMPLOYEES FEDERAL CREDIT UNION

**MMBR**

Minnesota Medical Business Resources
Owned By MMA & HMS

**www.mnmed.org/mmbr • e-mail: mmbr@mnmed.org**

# *Physician Opportunities and Miscellaneous Listings*

*Classified rates are $2.50 a word (300-word maximum). Minimum monthly charge is $50; with box number $5 additional. Ads will not be accepted by phone. (Effective January 2000, the rates will be $2.50 a word for all new ads.)*

- Placement of ads must be made six weeks before the date of publication, e.g., March 15 for May ad. Please send ad requests to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; or by fax, 612/378-3875; or e-mail, mm@mnmed.org
- The publisher reserves the right to decline or withdraw advertisements. The publisher is not responsible for clerical or typographical errors and is not permitted to divulge the identity of advertisers who have replies sent to box numbers.
- Cancellation of ads must be made by the first of the month preceding month of issue.

---

**Urgent Care Physicians:** Independent group seeking part-time/full-time physicians to staff our urgent care facilities in Bloomington, Burnsville, Edina, and Lakeville. Contact the director of support services, 612/985-8931, or send inquiries to Quello Clinic Ltd., 7801 East Bush Lake Road, Suite 300, Bloomington, MN 55439. (*6/98-R)

---

**Family Physicians:** Independent, well-established suburban FP group seeking part/full-time FPs who like doing OB and full FP services. Clinics in Bloomington, Burnsville, Edina, Eden Prairie, Lakeville, and Savage. Excellent call schedule. Contact: Medical Director at 612/985-8922 or write Quello Clinic Ltd., 7801 East Bush Lake Road, Suite 300, Bloomington, MN 55439. (*7/98-R)

---

**Olmsted Medical Center** is seeking BC/BE physicians in family medicine, emergency medicine, and dermatology to join our 75-physician multispecialty group. Great opportunity for well-trained physicians to join a family-friendly group in a dynamic, progressive practice. In addition to its main office and hospital in Rochester, the Olmsted Medical Center system includes 11 branch office locations in southeastern Minnesota. Excellent salary and benefits, including health benefits, malpractice, spending accounts, educational funds, profit sharing, 401(k)/403(b), and relocation assistance. Send CV to Lois Till-Tarara, Olmsted Medical Center, 1650 Fourth Street SE, Rochester, MN 55904; 507/287-2430. Fax: 507/285-8973. (*3/99-R)

---

**Falls Medical Search Seeks Physicians** for practice opportunities locally and nationally. To explore new practice options confidentially, send your CV or call Pat Falls, Falls Medical Search, 34 Forest Dale Road, Minneapolis, MN 55410; 612/922-0207 or 800/383-8916. (*5/92-R)

---

**Fairview Health Services:** Practice opportunities in urban, suburban, and rural locations. Moonlighting opportunities also available. Please contact Fairview Physician Recruitment and Retention at 612/672-2288, 800/842-6469, fax: 612/672-2986, e-mail: recruit1@fairview.org or visit our Web site at www.fairview.org/recruitment. (1/00-R)

---

**BC/BE Internist:** Outstanding opportunity for well-trained individual interested in balancing personal values and professional endeavors. Seeking a seventh BC/BE general internist to join a 37-physician multispecialty group. Visit www.lrhc.org. Excellent salary/benefits package includes guaranteed salary the first year with full partnership after one year. For confidential information on this opportunity, contact David T. Bjork, M.D., Bruce E. Money, M.D., or Jim Wilkus, administrator, 615 South Mill Street, Fergus Falls, MN 56537, 218/739-2221. EEO/AA. 4-6/00

---

**Family Physicians:** Large, independent, multispecialty clinic with primary care base located in northwest quadrant of Twin Cities seeks part/full-time family physicians. Admit to only one hospital (North Memorial). Option to do OB. Contact: Tom Harrer, North Clinic, 612/520-7964. 4-3/00

---

**CAMDEN PHYSICIANS, LTD.**

**PRACTICE OPPORTUNITY FOR FAMILY PHYSICIANS AT 3 SITES IN NORTHWEST METRO AREA:**

| CAMDEN OFFICE | FOUR SEASONS | GROVE SQUARE |
|---|---|---|
| 4209 Webber Pkwy. | 9750 Rockford Rd. | 13800 - 83rd Way |
| Mpls., MN 55412 | Plymouth, MN 55442 | Maple Grove, MN 55369 |

Camden Physicians, Ltd., is a growing, independent, physician-owned family practice single specialty group. A competitive salary with excellent benefits and partnership opportunities are offered.

Please contact or send CV to:

William Youmans, M.D. (612-522-6601)
and/or
Edwin A. Olson, Administrator (612-559-0092)

**CAMDEN PHYSICIANS, LTD.**
**9800 ROCKFORD ROAD, SUITE 100**
**PLYMOUTH, MN 55442**
**FAX: 612-559-9404**

Camden PHYSICIANS LTD.

# Are the everyday requirements of your specialty society becoming everyday emergencies?

# MSBC can help.

**MSBC offers a wide range of affordable, efficient services designed specifically to meet the administrative needs of medical societies, large or small.**



Your colleagues have honored you by electing you to serve as an officer of your society. They respect your professionalism and leadership skills. You've got the ideas and ambition it takes to make your society an integral part of your profession. However, the thought of you and your office staff taking time away from patients to manage the day-to-day activities of your society somehow takes away the thrill of what should be a very exciting time for you.

Management Services By Choice (MSBC), a program of the Minnesota Medical Association, can help. Our professional staff will work directly with you to expand, improve, or develop new programs to best serve your membership. For more information, call 612/378-1875 or 800/342-5662, or visit our Web site at www.mnmed.org/MSBC.

MSBC

MANAGEMENT SERVICES BY CHOICE

A PROGRAM SPONSORED BY THE MMA

**Fergus Falls Medical Group, P.A.:** The Fergus Falls Medical Group is expanding its 37-physician multispecialty clinic and is seeking physicians in the following specialties: dermatology, family practice, internal medicine, ophthalmology, optometry, orthopedics, pediatrics, and urology. Excellent salary/benefits package includes guaranteed salary the first year with full partnership after one year. For confidential information on this opportunity, contact David T. Bjork, M.D., or Jim Wilkus, administrator, 615 South Mill Street, Fergus Falls, MN 56537, 800/247-1066. EEO/AA. 4-6/00

---

**Internal Medicine:** Bloomington Lake Clinic seeks a BC/BE general internist to join our existing department. We are a multispecialty group formed in 1930 that is owned and governed by its own physicians. We have purposely not aligned with any one health plan or hospital system. We offer a minimum guaranteed salary the first two years with a full range of benefits and the opportunity for ownership. Please contact or send CV to John R. Bjorklund, M.D., president, or Robert Vogel, administrator, at 3017 Bloomington Avenue South, Minneapolis, MN 55407; 612/721-6511. Fax: 612/721-0239. 3-3/00

---

**MDsearch** assists medical groups and hospitals in their recruiting efforts. For confidential information on opportunities in the Upper Midwest, send CV and/or call collect Mary Jo Cordes, MDsearch, PO Box 21507, St. Paul, MN 55121; 651/454-7291. Fax: 651/454-7277. (2/93-R)

***Dermatology, General Surgery, Internal Medicine, Otolaryngology and Pediatrics***

There are immediate openings at Brainerd Medical Center for the following specialties: Dermatology, General Surgery, Internal Medicine, Otolaryngology, and Pediatrics.

Brainerd Medical Center, P.A.

- 40-Physician independent multi-specialty group
- Located in a primary service area of 50,000 people
- Almost 100% fee-for-service
- Excellent fringe benefits
- Competitive compensation
- Exceptional services available at 162-bed local hospital, St. Joseph's Medical Center

Brainerd, Minnesota

- Surrounded by the premier lakes of Minnesota
- Located in central Minnesota less than 2 1/2 hours from the Twin Cities, Duluth and Fargo
- Large, very progressive school district
- Great community for families

Call collect to Administrator:
Curt Nielson
(218) 828-7105 or (218) 829-4901
2024 South 6th Street
Brainerd, MN 56401
www.brainerdclinic.com

BMC

Owatonna — A place to practice. A place to live.

Owatonna Clinic — part of Mayo Health System — is expanding its healthcare team in orthopedic surgery, emergency medicine, family medicine and internal medicine.

Learn more about our practice and our community. Owatonna offers:

- Excellent schools
- Growing business community
- Active arts center
- Central location

**Contact David Berg, Owatonna Clinic, at 507-455-4441.**

Owatonna Clinic
*Mayo Health System*

**NORTHWESTERN WISCONSIN / NORTHEASTERN MINNESOTA**



# Midwest Living

***The ultimate mix of career and recreation.***

Select from practice opportunities in northwestern Wisconsin or northeastern Minnesota. Small towns or larger cities, we offer the best of midwest living with 25 locations. Clean air, clean water and an environment that brings you closer to all the things you value most. Enjoy a unique quality mix of career, four seasons of fun and outstanding growth potential with the region's most comprehensive health care system.

We seek **BE/BC physicians** in the following specialties:

| | | |
|---|---|---|
| Dermatology | Internal Medicine-Pediatrics | Psychiatry |
| Emergency Medicine | Neurology | Radiology- |
| Family Practice | OB/GYN | Musculoskeletal, |
| Gastroenterology | Orthopaedic Surgeon | Neuroradiology, |
| Hematology/Oncology | Orthopaedic Hand Surgeon | Interventional |
| Infectious Disease | Pediatrics | Rheumatology |
| Internal Medicine | Perinatology | Trauma Surgery |
| Internal Medicine- Intensivist | Physiatry- Pediatric | Urology |

SMDC
St. Mary's/Duluth Clinic Health System

Call or Fax C.V. in confidence to:
Physician and Provider Recruitment
SMDC - St. Mary's/Duluth Clinic Health System
400 E. 3rd St., Dept. 504, Duluth MN 55805
1-800-342-1388 or 218-786-8364 Fax: 218-722-9952
e-mail: provider@smdc.org
Websites: www.smdc.org or www.duluth.com *EOE A/A*

**Brainerd Medical Center, P.A.**
**2024 South Sixth Street, Brainerd, MN 56401**
**218-828-7105 • www.brainerdclinic.com**

## PEDIATRIC OPPORTUNITY

A Pediatric opportunity exists at Brainerd Medical Center. Would you like to live in a premiere vacation area in a community that will meet any family need?

If so, the Brainerd area is just for you! Look at the possibilities our multi-specialty clinic has to offer:

- No primary call
- Four day work week
- General Pediatric practice plus
- Enlarging consultative practice
- Active teaching program for med students and residents
- Excellent Family Practitioners
- Great Nurse Practitioners
- Superior Urgent Care and ER coverage
- Private Catholic hospital will exceed your expectations
- Above average income opportunity

To obtain more infromation about this Pediatric opportunity, please feel free to contact Pediatrician, Dr. Michael V. Severson, or Curt Nielsen, Clinic Administrator at the above address or phone number.

**Anesthesiologist–Minnesota:** Established anesthesia group has openings in its existing group practice at hospital sites in Brainerd and Bemidji, Minnesota. We offer full-time or flexible part-time positions with a competitive salary and benefits package. All candidates should be either BE or BC. Direct all inquiries to Thomas Yue, M.D., Regional Anesthesia Services P.A., 15612 Highway 7, Suite 243, Minnetonka, MN 55345; phone 612/932-0998 or fax 612/932-7122. (10/99-R)

---

**South Minneapolis:** Community clinic opportunity, family practice-medical director position. Please call Bill at 612/821-2800. 3-4/00

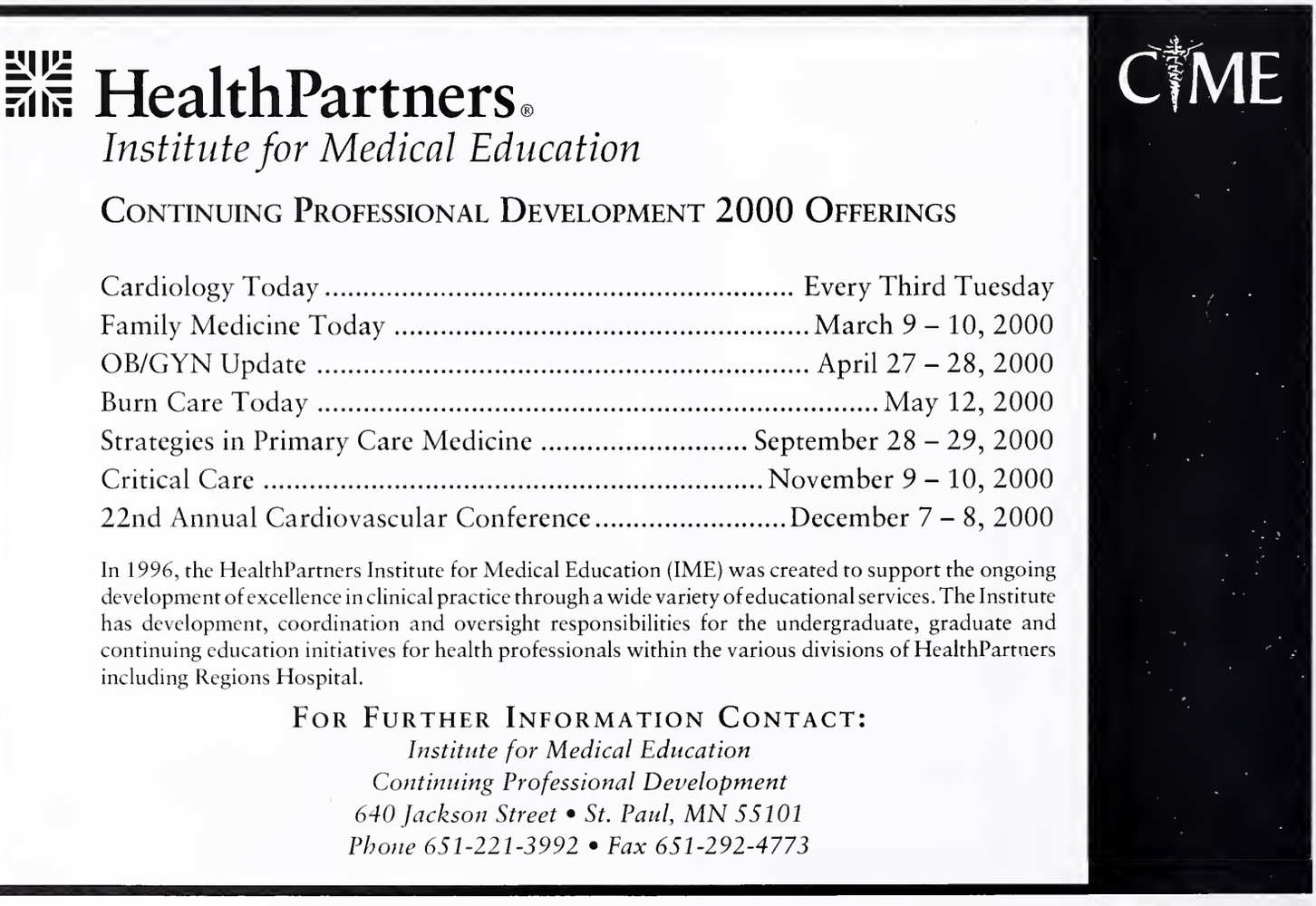
---

**Medical Director Needed:** Established independent clinic combining medicine and natural health care. Seeking family doctor for town 20 minutes southwest of Minneapolis. Practice the way doctors used to. Contact Dr. Copp or Mary Copp at 612/492-2225. 1-3/00

---

**Wisconsin Family Practice:** Excellent opportunity to join growing practice in picturesque riverside community. Convenient one-hour drive to Milwaukee or Madison. OB optional. Family-friendly 1:5 call. Sportsmen's and naturalist's paradise offering limitless year-round recreational opportunities. New clinic in the planning stages. Contact: Debi Rufi 800/243-4353. 1-3/00

---



**Pediatrician:** Full- or part-time. Private pediatric group in southwest metro area. Send resume to: Dr. Vicki Thomson, 7 Woodland Road, Edina, MN 55424.

3-5/00

---

**Iowa:** Family practice, hematology/oncology, hospitalist, obstetrics/gynecology, and rheumatology. Contact: Jerry Hess, Mercy Medical Center-North Iowa, 1000 4th Street SW, Mason City, IA 50401. Phone 888/877-5551, fax 515/422-6388 or e-mail Hess@mercyhealth.com.

3-5/00

---

**Physician:** BC/BE internist sought for an outpatient clinic setting. Also admit and manage inpatients at the area hospital. Job located in Windom, MN. Fax CV to 712/324-6515, attention Mr. Gustafson.

1-3/00

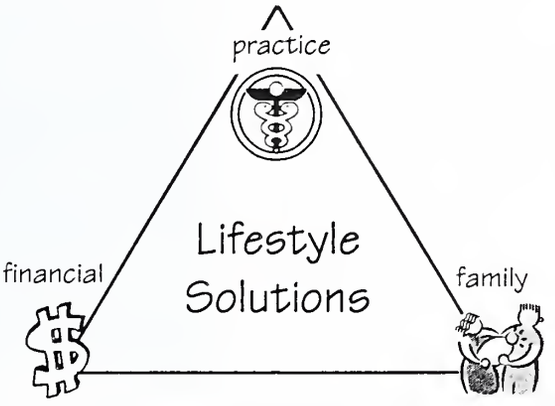
---

**OB/Gyn, General Surgeon, and Ophthalmologist:** BC/BE to join progressive 37-physician multispecialty group practice. Rural setting with metropolitian style, 25 miles from Minneapolis. Group has excellent reputation and large geographical referral area. Recently expanded facility is adjacent to newly remodeled 110-bed hospital. Comprehensive benefit package with excellent remuneration. Interested physicians should contact Joseph E. Van Kirk, M.D. Lakeview Clinic, Ltd. 424 State Highway 5 West, Waconia, MN 55387, 612/442-4461. AA/EOE.

3-5/00

---

P R O V I D I N G




# SOLUTIONS

• **Emergency Medicine** • **Locum Tenens**

***ACUTE CARE, INC.***

For more information, please call
**800.729.7813 or 515.964.2772**
e-mail address: jeffw@acutecare.com
home page: http://www.acutecare.com

---

ASPEN Medical Group

Aspen Medical Group is a 160+ provider multispecialty group with 9 clinics located throughout the Minneapolis/St. Paul metro area. We are currently seeking BE/BC physicians for the following specialties:

***Hospitalist***
***Internal Medicine***
***Urgent Care***

Aspen Medical Group is governed by its own physicians and health care providers. Guaranteed base salary available for the first two years. Competitive benefits package.

For further information, please contact:

Nancy Borgstrom, Provider Services Coordinator
1020 Bandana Boulevard West
Saint Paul, MN 55108
phone 651-641-7081 • fax 651-641-7151
e-mail nborgstr@aspenmed.org

EOE. No J-1 opportunities available.

---

# Emergency Medicine Opportunities

**Emergency Practice Associates** provides quality emergency physician services. Our physicians work as independent contractors in a growth-oriented, physician-supported environment.

***full time opportunities***

| | |
|---|---|
| *GRAND RAPIDS, MN* | **Itasca Medical Center**<br>Medical Director and Staff Physician |
| *HIBBING, MN* | **University Medical Center–Mesabi**<br>Staff Physician |
| *LITTLE FALLS, MN* | **St. Gabriel's Hospital**<br>Staff Physician |
| *NEW ULM, MN* | **New Ulm Medical Center**<br>Medical Director and Staff Physician |

***part time opportunities***

| | |
|---|---|
| *AITKIN, MN* | **Riverwood Health Care Center** |
| *CROSBY, MN* | **Cuyuna Regional Medical Center** |
| *ST. PETER, MN* | **Community Hospital & Health Center** |

EMERGENCY PRACTICE ASSOCIATES
BOX 1260
WATERLOO, IA 50704
FAX: 319-236-3644

**Call the recruiting specialist today at 1-800-458-5003**
www.epamidwest.com

# Office confusion?



# Office Depot and MMBR can help.

## The Office Supply Program

**Minnesota Medical Business Resources and Office Depot are** pleased to offer the following special program for members of the Minnesota Medical Association and their clinics.

The Office Supply Program includes:

- Up to 80% off list price on the items most frequently ordered by medical clinics.
- Average of 45% off list price on all other stocked items.
- 750 items of furniture available for next day delivery.
- Easy ordering via Fax or Internet—customized forms developed for your clinics based upon frequently ordered items.
- Retail market pricing on electronics, business machines and software.
- FREE next business day delivery to all of Minnesota.
- Retail store purchasing cards for your emergency needs, copies, specials. *Receive your contract pricing at our retail stores.*
- Quarterly rebate of 3 % on stocked item purchases.

**To establish an account or if you have questions, please contact:**

**Brad Broman**
Account Manager
Direct line: 612-513-4056 • Outstate: 800-392-4777 x4056
email: bbroman@officedepot.com

Office DEPOT®
Business Services Division

MMBR
Minnesota Medical Business Resources
Owned By MMA & HMS

**We've been practicing medicine for over 80 years. Maybe it's time you joined us.**

*We're looking for BC/BE physicians for the following positions:*

**Occupational Medicine**—Our WorkPartners℠ program is well established and has a professional support staff in place. WorkPartnersSM has established relationships with several area employer groups and is a designated provider. Our service area includes a population of over 250,000. No nights or on call.

**Radiology**—Exceptional opportunity to join our Radiology Department. Brand new, state-of-the-art volume acquisition multi-detector, spiral CT scanner coming on line at the Clinic in March necessitates expanding this well established department. This opportunity also includes reading MRI from the region's newest open MRI. Desirable call schedule provides time to enjoy life in this scenic river valley community.

Mankato is home to several major corporation subsidiaries and multi-national companies. We offer a guaranteed first year salary with incentive pay plan. Our full range of benefits includes a generous retirement plan and liberal time-off policy.

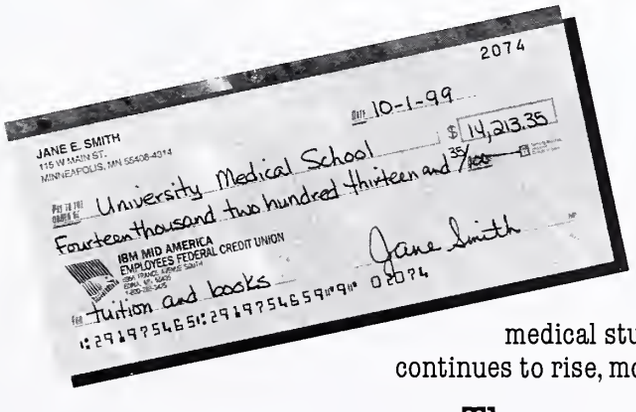
**For more information call Dr. Byron C. McGregor, Medical Director at 507-389-8548 or Dennis Davito, Director Physician Recruitment, 507-389-8654 or send CV.**

Mankato Clinic
1230 East Main Street
Mankato, MN 56002-8674

MARCH 2000 INDEX TO ADVERTISERS

Acute Care Inc. ..... 61
Advanced Imaging ..... 5
Affiliated Community Medical Centers ..... 49
Alexandria Clinic, P.A. ..... 28
Allina Continuing Education ..... 53
Aspen Medical Group ..... 61
Brainerd Medical Center ..... 59, 60
Camden Physicians ..... 57
CentraCare Clinic ..... 38
Delacore Resources ..... 39
Emergency Practice Associates ..... 61
First Call Physicians, Inc. ..... 54
Global Holidays ..... 21
Hazelden Foundation ..... 22
HealthPartners Institute for CME ..... 60
Hennepin County Medical Center ..... 41
Hennepin Faculty Associates ..... 48
Kundel & Streitz, P.A. ..... 32
Leonard, Street & Deinard ..... 22
Management Services by Choice ..... 58
Mankato Clinic ..... 63
Medical Protective Company ..... 7
MeritCare ..... 39
Minnesota Physicians Foundation ..... 63, Cover 3
Midwest Medical Insurance Co. ..... 42, Cover 4
MMA Membership ..... 23
MMBR ..... 52, 55, 56, 62
Multicare Associates of the Twin Cities ..... 54
North Memorial Health Care ..... 49, 51
Owatonna Clinic-Mayo Health Systems ..... 59
Prudential ..... 28
Regions Hospital ..... Cover 2
St. Cloud Hospital ..... 48
St. Mary's/Duluth Clinic Health System ..... 59
University of Minnesota-Duluth ..... 28
Winona Clinic Ltd. ..... 54

Sometimes, the hardest part of medical school has nothing to do with gross anatomy or board exams.




Wondering how to pay tuition shouldn't be a medical student's biggest worry. But as the cost of medical education continues to rise, more and more students have a hard time making ends meet.

They need your help.

For over 40 years, medical students have relied on the Minnesota Physicians Foundation (MPF) to help them become the next generation of physicians. MPF provides low-interest loans and scholarships to Minnesota's medical students.

The future of medicine depends on today's medical students. And, they depend on you.

Contribute to the Minnesota Physicians Foundation.
For more information, please call 612/378-1875 or 800/DIAL MMA.

MPF
MINNESOTA PHYSICIANS FOUNDATION
A PHYSICIAN-SUPPORTED FOUNDATION OF THE MINNESOTA MEDICAL ASSOCIATION

*A tradition of giving, a lifetime of commitment*

# Sentence Variety

## *The Long and Short of It*

James Kaufmann, Ph.D.

Last time (January 2000), I encouraged you to make conscious use of the simple sentence. That type of sentence works well for certain purposes, such as introducing a topic, stating a fact, or stressing a key point. And it complements the compound, complex, and compound-complex sentences that need no assistance getting into print.

Because it contributes to sentence variety, the simple sentence can improve the rhythm in a text. This time, I suggest additional ways you can vary your sentences and enliven your writing.

### *Vary the Length*

Paragraphs composed of sentences that are all the same length are a missed opportunity to stimulate a reader. Paragraphs containing an unrelieved succession of long sentences can appear dense and discourage a reader. Besides providing a resting point for your reader, a short sentence creates rhythm in your text. Use it to make an important point and you'll get a rhetorical boost in the bargain.

(Note: Sentence length is not necessarily a function of syntactic complexity. Just as simple sentences can be long, compound sentences can be short.)

### *Vary the Sentence Type*

Perhaps you once had to memorize that, classified according to function, there are four types of sentences: declarative, interrogative, imperative, and exclamatory. Perhaps you also wondered when that information would prove useful. Today's the day.

Most sentences are declarative: They make statements. But why not pose a rhetorical question occasionally? Or you might issue a mild imperative to the reader, such as "Consider what happens in patients with congestive heart failure." A touch of variety goes a long way. But go easy on the exclamations! They quickly become annoying!

### *Vary the Beginnings*

Unlike some languages, English is an "SVO" language. In sentences, we naturally put the subject (S) first, the verb (V) second, and then supply the complement, or object (O), when there is one. There's nothing wrong with arranging information this way. If every sentence begins with the subject of the independent (or main) clause, however, texts can become monotonous. Here are six other ways you can start a sentence:

- Adverb: *Normally,* the parts of the heart beat in an orderly sequence.
- Prepositional phrase: *In four-chambered mammalian hearts,* the SA node is located at the junction of the superior vena cava and the right atrium.
- Dependent clause: *When the cholinergic vagal fibers to nodal tissue are stimulated,* the membrane becomes slightly hyperpolarized.
- Present participle phrase (the *-ing* form of a verb, and all related words): *Using a Holter monitor,* the CCU staff can record the electrocardiogram of an ambulatory patient.
- Past participle phrase (the *-ed* or *-en* form of a verb, and all related words): *Caused by an electric shock or an extra systole during the vulnerable period,* ventricular fibrillation can be fatal after a few minutes.
- Infinitive phrase (*to* plus a verb, and related words): *To restore normal sinus rhythm,* Emergency Department personnel must often use electrical defibrillation.

### *Caveat Scriptor*

Don't worry about sentence variety when you're writing the first draft. Like diction (see June 1999 column), sentence variety is best addressed during editing.

More important, don't assume that arbitrarily varied sentences will make your writing good. The variation must be deliberate. After all, the reason for knowing the full range of options is to be able to select just the right one for your purpose. In your professional writing, never make substance a slave to style. MM

*James Kaufmann is an editor in the Section of Scientific Publications at the Mayo Clinic, in Rochester.* *Copyright 2000 Mayo Foundation*

The U of M's popular Mini Med School ... A regional health policy ...

# Minnesota Medicine

JOURNAL OF CLINICAL AND HEALTH AFFAIRS




HS/HSL
UNIVERSITY OF MARYLAND AT
BALTIMORE
APR 28 2000
STACKS
STACKS
REC'D
NOT IN CIRC.

11968-40932 Exp: 12/2000
Univ. of Maryland
Health Sciences Lib.
111 S. Greene St
Baltimore, MD 21201-1583
MXD

## Medical Consumers Browse

# A Chaotic Cyberspace

APRIL 2000

# HEALING THE BRAIN
# BEGINS WITH
# INSPIRING THE MIND



Recognize both the physical and emotional challenges that face brain injury patients. Encourage the pursuit of an active, productive life. And devote a specialized team to deliver a comprehensive approach to rehabilitation. It's how Bethesda helps reinvent liv

**BETHESDA REHABILITATION HOSPITAL**
800-566-2720
St. Paul, MN

HealthEast Care System
*Dedicated to Caring.*
www.healtheast.org

GERIATRIC MEDICAL/BEHAVIORAL · BRAIN INJURY · RESPIRATORY CARE · REHABILITATION

# Minnesota Medicine

Published monthly by the Minnesota Medical Association



COVER
*Illustration by Dave Cutler.*

DEPARTMENTS

2 ..... Editor's Note

6 ..... Letters to the Editor

33 ..... MMA News & Views

56 ..... CME in Minnesota

60 ..... Classified Ads

64 ..... Index to Advertisers

FACE TO FACE

**8** **Showtime** ..... Dan Emerson
*Professor Gregory Vercellotti, M.D., takes his teaching to TV as host of the University of Minnesota's "Health Talk and You."*

COVER STORY

**12** **Medical Consumers Browse a Chaotic Cyberspace** ..... Charles R. Meyer, M.D.
*A search for medical information on the Internet turned up good information—as well as some that's questionable. What patients need now is a guide to tell the difference.*

FEATURE STORIES

**20** **Mini Med School: For That Little Bit of Doctor in Everyone** ..... Margaret E. Parker
*The University of Minnesota's popular lecture series attracted a public eager for more medical knowledge.*

**23** **Lessons from the Heart** ..... Jeremiah Christopher Whitten
*A Mini Med School participant is awed by the human heart and the transformative power of medical school.*

**26** **Health Policy Hub** ..... Jodi Ohlsen Read
*The National Institute of Health Policy, a partnership of the universities of Minnesota and St. Thomas, hopes to become* the *health policy center for the Upper Midwest.*

**30** **Leading the Way** ..... Jennifer Thistle
*The MMA and the University of St. Thomas are teaching physicians how to be leaders in their health care organizations.*

CLINICAL & HEALTH AFFAIRS

**41** **Regional Differences in Cardiovascular Mortality in Minnesota** ..... John Morrison, Vincent F. Garry, M.D., Mary E. Harkins, M.P.H., Melissa Cohen, and Judy Palermo

PUBLIC HEALTH REPORT

**48** **Loneliness: An Overlooked and Costly Health Risk Factor** ..... Jeffrey Geller, M.D.
*Physicians should recognize and treat loneliness as a factor in physical illness.*

MEDICINE LAW & POLICY

**52** **New Safe Harbors Expand Protections against Prosecution or Sanctions** ..... American Health Lawyers Association
*Attorneys and their physician clients can now choose from 23 safe harbors to structure business ventures.*

# Diving for Pearls

Much of this issue is about medical education and pearls. Yet it doesn't report the latest fads in medical school curriculum. It doesn't detail the best method to teach surgical residents how to remove colons or gallbladders. It doesn't delve into the struggles of academic medicine to stay afloat in the managed care maelstrom. Instead, this month's *Minnesota Medicine* covers the medical education of patients. And that education is not just happening in the doctor's office. The patient public is diving for pearls of medical knowledge in new sites.



*"The patients' quest for more medical knowledge should be a challenge to physicians to hone their teaching skills."*

Rounds in medical school and residency were enlivened by the sudden sighting of a clinical pearl. Whether dropped by an attending, a resident, or an ambitious medical student, these gems were compact knowledge that became lodged in our memory. Interns collected them in little blue notebooks, and a few enterprising publishers even put them in anthologies.

Patients also look for medical pearls, and traditionally, they have relied on physicians. Although patients sometimes need pills and occasionally need surgery, they have always needed advice and information in a concise, understandable form. Today's patients want more. Shelves of medical self-help books at Barnes & Noble, racks of magazines stuffed with health tips, and a proliferation of doctor call-in shows attest to the public's desire for medical information. The overwhelming response to the University of Minnesota's Mini Medical School, reported by Margaret Parker and Jeremiah Whitten (see pages 20–24), confirms this trend.

Does this search by patients for more medical knowledge signal physicians' failure to provide the answers patients need? In the patient-physician encounter, there is never enough time. There is always a gap between doctor and patient in fundamental knowledge and in the emotional import of the information. But because patients and doctors share the goal of patient health, the patients' quest for more medical knowledge should be a challenge to physicians to hone their teaching skills. This month's articles hold some pearls for physicians interested in educating patients. I've plucked a few:

**"Reach out to the public."** Dr. Greg Vercellotti's "reaching out" goal for the Mini Medical School translates to physicians in practice as well as in academics. Reaching out in practice means answering all questions as if they're brilliant and treating each patient concern as legitimate.

**"Demystify medicine."** Doctors' offices and hospitals are like "mysterious castles." Like shamans, physicians hold the keys to a perplexing, near-occult body of knowledge that needs demystification. Many physicians in the past reveled in their godlike image, shunned true patient teaching, and handed down oracular pronouncements to their patients. That won't work today. Just as the Mass is rarely celebrated in Latin any longer, today's doctors have to jettison the puzzling polysyllabics and talk regular talk.

**Become "masters of metaphor."** Teaching is an art that is part straight talk and part entertainment. Though the purpose of the Mini Medical School wasn't entertainment, teaching without the tricks of metaphor, simile, humor, and today, multimedia, is likely to be wooden and ineffective. When talking with patients, physicians need to spice their conversations with examples that illustrate and with variety that entertains, and they need to be open to the educational wonders of new technology.

**"Not that my doctors aren't approachable. They're busy."** This quote from a woman attending the Mini Medical School is poignant. Can patients ever get a workable understanding of their medical questions from someone who is too busy to answer their questions? No.

I think that is the most valuable pearl in this issue.

*–Charles R. Meyer, M.D., Editor-in-Chief*

ADVANCED IMAGING MRI

# A clear image of the future.

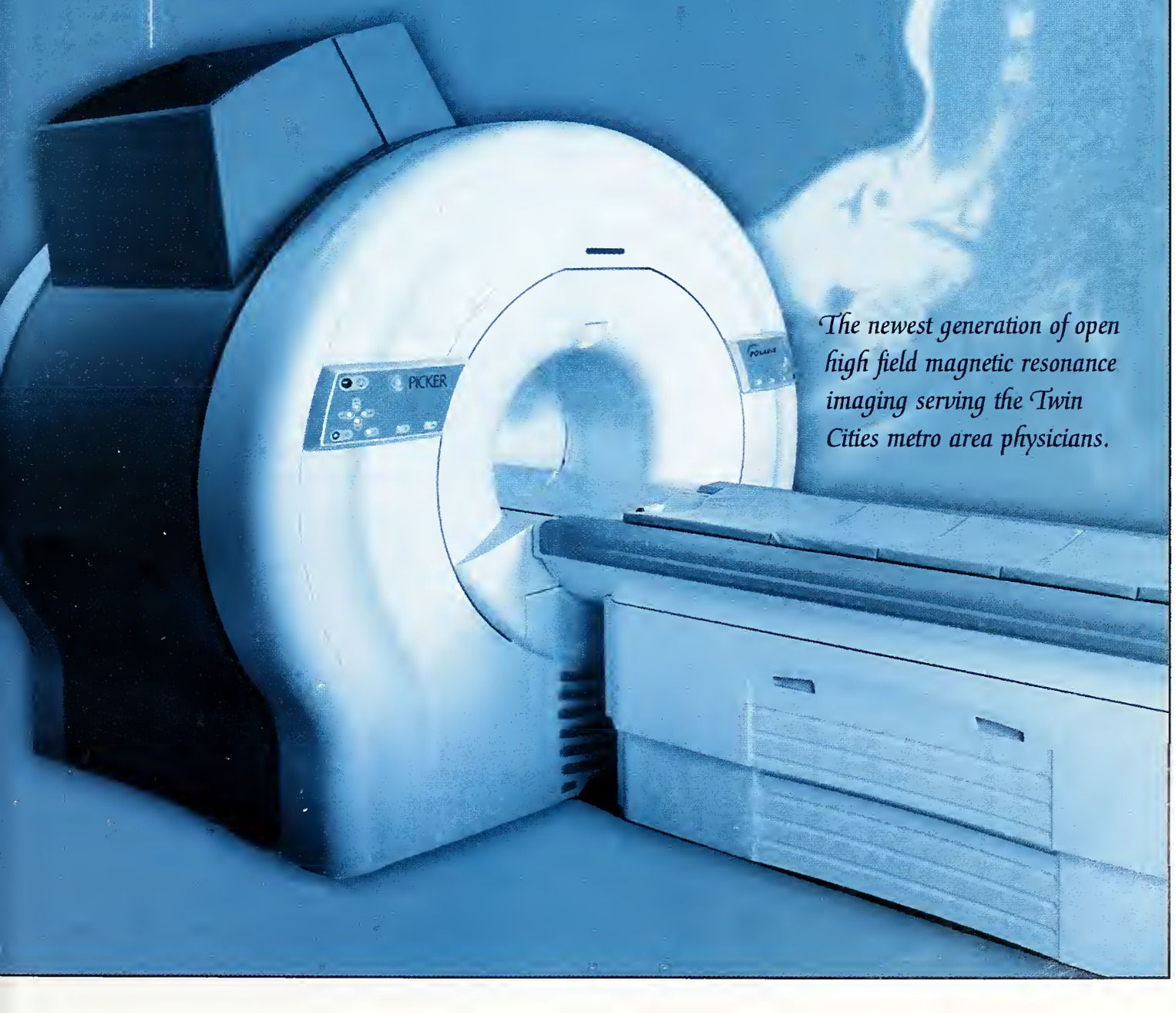
## Clarity. Convenience. Confidence

All MR imaging systems are not the same. Give your practice -and your patients- the most advanced, most versatile diagnostic service available.

Our facility is located at
Central Medical Building at
Lexington Pkwy. and I-94
St. Paul

To make referrals for patients call:

(612) 529-6000
(651) 647-0000
FAX: (651) 647-1111




*The newest generation of open high field magnetic resonance imaging serving the Twin Cities metro area physicians.*

# *Minnesota Medicine*

Published monthly by the Minnesota Medical Association

*Owner and Publisher*
Minnesota Medical Association

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Managing Editor*
Meredith McNab

*Associate Editors*
Margaret Parker
Carmen Peota

*Publications Assistant*
Katie Leonard

*MMA News & Views Editor*
Lorrie Holmgren

*MMA News & Views Writer*
Cynthia Lehman

*Art Director*
Sarah Kirkwood

*Graphic Designers*
Sarah Kirkwood
Katie Leonard

Send manuscripts, subscriptions, and other material for consideration to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/378-1875. E-mail: mm@mnmed.org
The editors reserve the right to reject editorial, scientific, or advertising material submitted for publication in *Minnesota Medicine.* The views expressed in this journal do not necessarily represent those of the Minnesota Medical Association, its editors, or any of its constituents. Annual subscription–$40. Single copies–$3.50. Canadian–$70. Foreign–$70.

***To Advertise:*** Contact Michele Holzwarth, *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/623-2880 or 800/DIAL MMA (342-5662).



**Advisory Committee**

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Advisory Committee*
Charles R. Meyer, M.D.
Edmund C. Burke, M.D.
Richard C. Lussky, M.D.
Lynne Ogawa, M.D.
Paul S. Sanders, M.D.
Leif I. Solberg, M.D.
Barbara P. Yawn, M.D.
Meredith McNab, staff

*Editors Emeritus*
Edmund C. Burke, M.D.
1991-1993

Richard L. Reece, M.D.
1975-1990

Reuben Berman, M.D.
1971-1974

Carl O. Rice, M.D.
1961-1970



**Copyright & Post Office Entry**

*Minnesota Medicine* (ISSN 0026-556X) is published on the fifth of each month by the Minnesota Medical Association, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761, copyright 2000. Permission to reproduce editorial material in this magazine must be obtained from *Minnesota Medicine.* Periodicals postage paid at Minneapolis, Minnesota, and at additional mailing offices. POSTMASTER, send address changes to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761. (USPS 3519000.)



MINNESOTA MEDICAL ASSOCIATION

**1999–2000 Officers**

*President*
John M. Van Etta, M.D.

*President-Elect*
Blanton Bessinger, M.D.

*Chair, Board of Trustees*
Robert K. Meiches, M.D.

*Vice President*
Kevin C. Fleming, M.D.

*Secretary*
David L. Estrin, M.D.

*Treasurer*
Noel R. Peterson, M.D.

*Speaker of the House*
Gary D. Hanovich, M.D.

*Vice Speaker of the House*
Rebecca Jean Hafner, M.D.

*Past President*
Judith F. Shank, M.D.

*Chief Executive Officer*
Paul S. Sanders, M.D.

**MMA Senior Staff**

*Director of Communications*
Lorrie Holmgren

*Chief Financial Officer*
George C. Lohmer Jr.

*Director of State and Federal Legislation*
David Renner

*Director of Health Law*
Christina F. Rich, J.D.

*Director of Health Economics and Policy Analysis*
Janet Silversmith

*Director of Executive Office*
Karen A. Tourdot

**Alliance**

*President*
Sandra Weissler

*President-Elect*
Diane Gayes

**Board of Trustees**

*N.W. District*
Jerry P. Rogers, M.D.

*N.E. District*
James L. Anderson, M.D.
Charles R. Helleloid, M.D.

*N. Central District*
James J. Dehen Jr., M.D.
Keith D. Larson, M.D.

*West Metro*
Lee Beecher, M.D.
Karen K. Dickson, M.D.
John W. Larsen, M.D.
Robert K. Meiches, M.D.
Henry T. Smith, M.D.

*East Metro*
Thomas Dunkel, M.D.
Joseph L. Rigatuso, M.D.

*S.W. District*
Terence P. Cahill, M.D.
Elton G. Wing, M.D.

*S.E. District*
Peter Amadio, M.D.
G. Richard Geier Jr., M.D.
Kimberly McKeon, M.D.

*Resident Member*
Andrew G. Moore, M.D.

*Medical Student*
Joel V. Oberstar

**AMA**

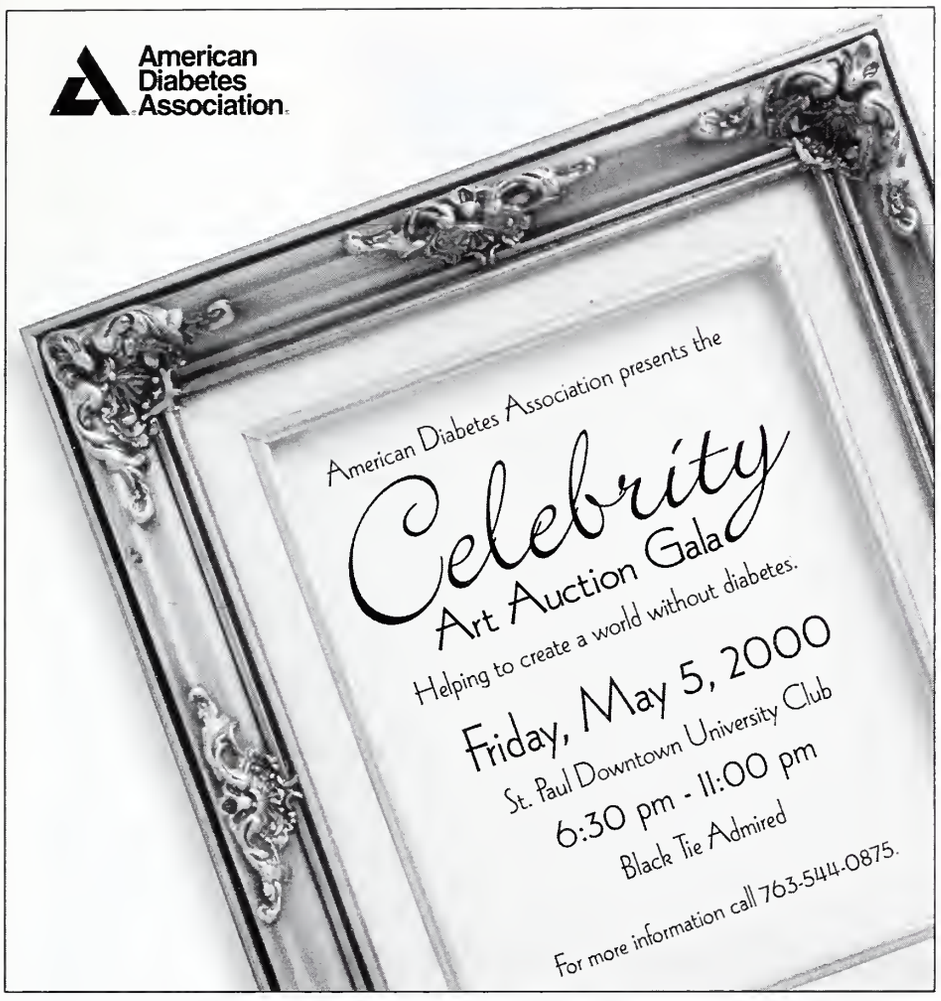
*AMA Delegates*
Robert D. Christensen, M.D.
Frank J. Indihar, M.D.
Carolyn J. McKay, M.D.
Lyle Munneke, M.D.
Audrey M. Nelson, M.D., *Chair*
Thomas L. Peyla, M.D.
Andrew J.K. Smith, M.D.

*AMA Alternates*
Raymond G. Christensen, M.D.
Kenneth W. Crabb, M.D.
Anthony C. Jaspers, M.D.
Paul C. Matson, M.D.
Sally Trippel, M.D.
John M. Van Etta, M.D.
Benjamin H. Whitten, M.D.



**MMA Address**

Minnesota Medical Association
3433 Broadway Street NE, Suite 300
Minneapolis, MN 55413-1761
Phone: 612/378-1875 or 800 DIAL MMA (342-5662)
Fax: 612/378-3875
E-mail: mma@mnmed.org
Web site: www.mnmed.org




## Medical Director
## Software Company

A leading-edge internet software company located in the Twin Cities is seeking a Medical Director to assist in the development of its software products.

This individual will have the opportunity to work at the forefront of combining medicine with internet technologies. Qualified candidates will have 5+ years clinical experience as an M.D. in internal medicine, are highly motivated self-starters, have excellent interpersonal skills and have an interest in the internet.

The compensation package for this position includes a competitive salary and full benefits.

Interested parties should fax resumes to 612-941-7019, attn: Susan Workman, H.R. All resumes will be held in strict confidence.

## North Memorial Health Care®

*An Organization of Health Care Professionals*

*North Memorial is an independent, full-service facility located in the northwest Twin Cities with more than 700 physicians in more than 40 specialties. We are known as the trauma center in the region with other notable programs including the Hubert H. Humphrey Cancer Center, North Heart Center, North Rehabilitation Center, and the Women's and Children's Center. We also strongly promote physician practice opportunities within our associated clinics, including those that are independently owned, joint ventures and hospital owned. Which means you can choose from large or small and multi or single specialty practice options in metro, suburban or rural locations. North Memorial offers very competitive salaries and excellent fringe benefits. Sounds like the perfect job, doesn't it?*

***Positions now available for BE/BC physicians in:***

- **Family Practice**
- **OB/GYN**
- **Internal Medicine**
- **Gastroenterology**
- **Hematology/Oncology**
- **Emergency Medicine**
- **Pediatrics**
- **Maternal Fetal Medicine**
- **Urgent Care**

For consideration to be a part of our team please mail, fax, or e-mail cover letter and C.V. to:

Mark A. Peterson, Physician Recruiter
North Memorial Health Care
3300 Oakdale Avenue North
Robbinsdale, MN 55422
Phone: (800) 275-4790 or (612) 520-1336
Fax: (612) 520-5997
E-mail: mark.peterson@northmemorial.com



## Issues Resonate with Physician

Just a few comments on *Minnesota Medicine*. First, for your Editor's Note on Econ 101 (February 2000), I think your grade is good. You are able to delineate some common difficulties of physicians in practice, philosophically how we think in trying to implement some of these decisions for our patients. I would like to encourage you to continue in the same vein.

Second, I would like to congratulate you on publishing Mike Hatch's agenda on health care and, more important, Ron Glasser's commentary on managed health care (February 2000). Dr. Glasser has some very strong and pertinent feelings, and it is important to air these in the state journal. There is no question that we physicians have lost control, yet we are the group that still provides patient care and medical care to the community. It is difficult for physicians to have all the factual information that Dr. Glasser presents in his article. It updates where we are and the relationships we have had, especially with the health maintenance organizations, in a system for which we are delivering health care.

Again, as a practicing physician, I thank you for having the courage to publish these articles.

*Neil Hoffman, M.D., F.A.C.P.*
*Department of Internal Medicine*
*Aspen Medical Group*
*Hopkins, Minnesota*

## The Decline and Fall of HMOs

I agree with Dr. Ronald J. Glasser's article "Managed Care Finds Itself in Dire Straits" in *Minnesota Medicine*'s February issue. Dr. Glasser says managed care's overzealous efforts to cut costs have brought it to the verge of collapse.

Minnesota is now home to UnitedHealth Group, America's second-largest managed care organization. I was present at the creation of the modern managed care movement in Minnesota in 1972. That year, Paul Ellwood persuaded Glen Nelson of the St. Louis Park Clinic to launch its HMO. That opened the HMO floodgates for Physicians Health Plan, the Blues, HealthPartners, and other HMOs. Now, at the beginning of the decline of the managed care movement in America, I am present in Connecticut, the home of Aetna, the largest managed care organization in the United States.

As I write, February 19, UnitedHealth Group stock is trading at $57 7/8, down 17.3 percent from its 52-week high of $70, and Aetna Inc. is trading at $38 11/16, down 57.6 percent from its 52-week peak of $99 7/8. Aetna Inc. is under siege from stockholders.[1,2] Collectively, over the last year, for-profit HMOs have lagged 30 percent behind the S&P's 500 Index.

Glasser is absolutely right in his assessment of the decline and fall of HMOs. Twenty years in Minnesota and 10 years in the rest of the country "should be enough time for any idea to prove its worth." Time and events have proved that HMOs are a flawed business model (HMO executives in distant suites and remote sites cannot direct health care traffic on the ground) with a flawed attitude (these same executives, and not physicians and patients, know best). You cannot mix health insurance and health care under one corporate roof. In the words of Doug Emery, a health economist friend, it is like "trying to mate a sterile mule."

The evidence that HMOs are now on the slippery downhill slope[3] is there for everyone to see.

- In 1998, the number of employed Americans in HMOs dropped for the first time.[4]
- The HMO industry's profitability is steadily eroding, as evidenced by Kaiser's pulling out of Eastern markets, PacifiCare's mounting financial problems, Aetna's sharply dropping stock values, and UnitedHealth Group's closing of its entire utilization review division to save money and face.
- Harvard Pilgrim, one of the nation's largest and richest HMOs, recently went into receivership, along with 20 other HMO plans in 1999, including Xantus Healthplan of Mississippi, Tufts Health Plan of New England, and Premier Health Care of Arizona.
- The House of Representatives passed a comprehensive managed care reform bill (Patients Rights Bill) by a vote of 271–151. An announcement by anti-tobacco lawyers that they had filed class action suits against five major national HMOs quickly followed.

Even more powerful and persuasive to me is news content analysis research I have conducted. From February 1998 to February 2000, I have read *The New York Times*, the *Wall Street Journal*, *USA Today*, the *Boston Globe*, and the *Hartford Courant* each day. I have collected and clipped all articles relating to all aspects of health care, and I have downloaded from AOL "news" all pertinent articles under "physicians." I have used a computer to categorize these articles and Internet items, now numbering more than 7,000. Under "HMOs" and "Managed Care" categories, I now have more than 800 articles. An overwhelming number of these articles—87

percent—contain "negative" news about HMOs and their managed care cousins.

I do not attribute this negative reporting to systematic media bias, but to the stiffening resistance and widespread unpopularity of managed care. After all, editors have daily deadlines to meet and a confined space to fill, and they select the news that will please their reading public and reflect the events of the day. In his 1982 book "Megatrends," John Naisbitt demonstrated that news content is an accurate barometer of social attitudes and trends. Indeed, Allied Intelligence used news content analysis during World War II to judge the attitudes and trends among the Germans and the Japanese.

Now, to get to the point: I do not believe any institutional movement—and the managed care movement is "institutional" in that it covers 86 percent of employed Americans—is sustainable at an 87 percent level of negativity. HMOs cannot survive in light of bad news on the front page every day.

### What's the Alternative?

Probably a broad-based consumer- and physician-driven health system with defined contributions by employers, a wide choice of HMO and non-HMO health plans, financing through medical savings and flexible savings accounts, Internet-based buying markets for plans, Internet-based education programs teaching patients to be responsible and accountable for their own health, and the organization of physicians into broad networks held together by Internet-based information systems that enrich the physician-patient relationship, dramatically cut overhead, and define desirable health and chronic disease outcomes.

*Richard L. Reece, M.D.*
*Old Saybrook, Connecticut*
*Editor-in-Chief,* Minnesota Medicine, *1975–1990*
*Editor-in-Chief,* Physician Practice Options, *1996 to present*

REFERENCES

1. Levick D. Aetna under seige. Hartford Courant, February 12, 2000.
2. Gentry C. As Aetna's woes pile up, its chairman is under fire. Wall Street Journal, February 16, 2000.
3. Reece RL. The Laffer Curve and HMOs: or, is managed care on the slippery downhill slope? Connecticut Medicine 2000, 64:11-18.
4. Winslow R. Measure of HMO membership falls for the first time. Wall Street Journal, January 26, 1999.

## Long-term Outcome following Pancreas Surgery

*Note: This case was presented at a meeting of the Minnesota Surgical Society in Duluth last September.*

On June 13, 1956, a 9-year-old boy was admitted to Ancker Hospital in St. Paul after falling while riding a bicycle the day before. He had a 2-cm bruised area to the right of the midline in the right upper quadrant of the abdomen where he had fallen against the end of the right handlebar. He was seen in the emergency room on June 12, was sent home because of a negative exam, and returned because of increasing pain and tenderness. When I heard from the junior resident, I suggested getting a white blood count and a serum amylase. The WBC was 11,000, hemoglobin was 12 grams, and the serum amylase was 378 somagyi units. The x-rays showed no evidence of free air in the peritoneum. On examination the patient had pain tenderness and rebound tenderness. He had an essentially boardlike abdomen, probably because it was 24 hours since the injury. A decision was made to explore for possible traumatic injury to the pancreas.

The patient was taken to surgery the evening of June 13 and exploratory laparotomy was done through a midline incision. At surgery, a transection of the pancreas was found at the junction of the body and neck of the pancreas, exposing the superior mesenteric artery and vein. The pancreatic duct was transected and noted to protrude from the proximal segment. We had seen cases of pancreatic trauma in which the distal portion was smaller, but the outcome was best with resection of the distal pancreas. So the body and tail were removed with the spleen. The cut end of the remaining segment was closed with a flap of peritoneum. A 3-0 silk tie was used to close the pancreatic duct. The wound was closed with interrupted silk without drainage. The patient made an uneventful recovery. Fasting blood sugars varied between 82 and 133 mg% following the operation. The patient was discharged 12 days after admission.

On March 19, 1981, it was noted that the patient had had a splenectomy and pancreatic resection and no trouble since. On March 16, 1990, his calcium was 9.8. He had normal pulmonary function on August 14, 1996. He had a normal EKG on March 28, 1998. On September 14, 1996, a bone scan was negative, hemoglobin was 14.8, and the WBC was 8.6. On April 6, 1998, pancreatic enzymes: serum amylase was 64 and serum lipase was 67.4, CK was 97, ANA was negative, and ESR was 5.

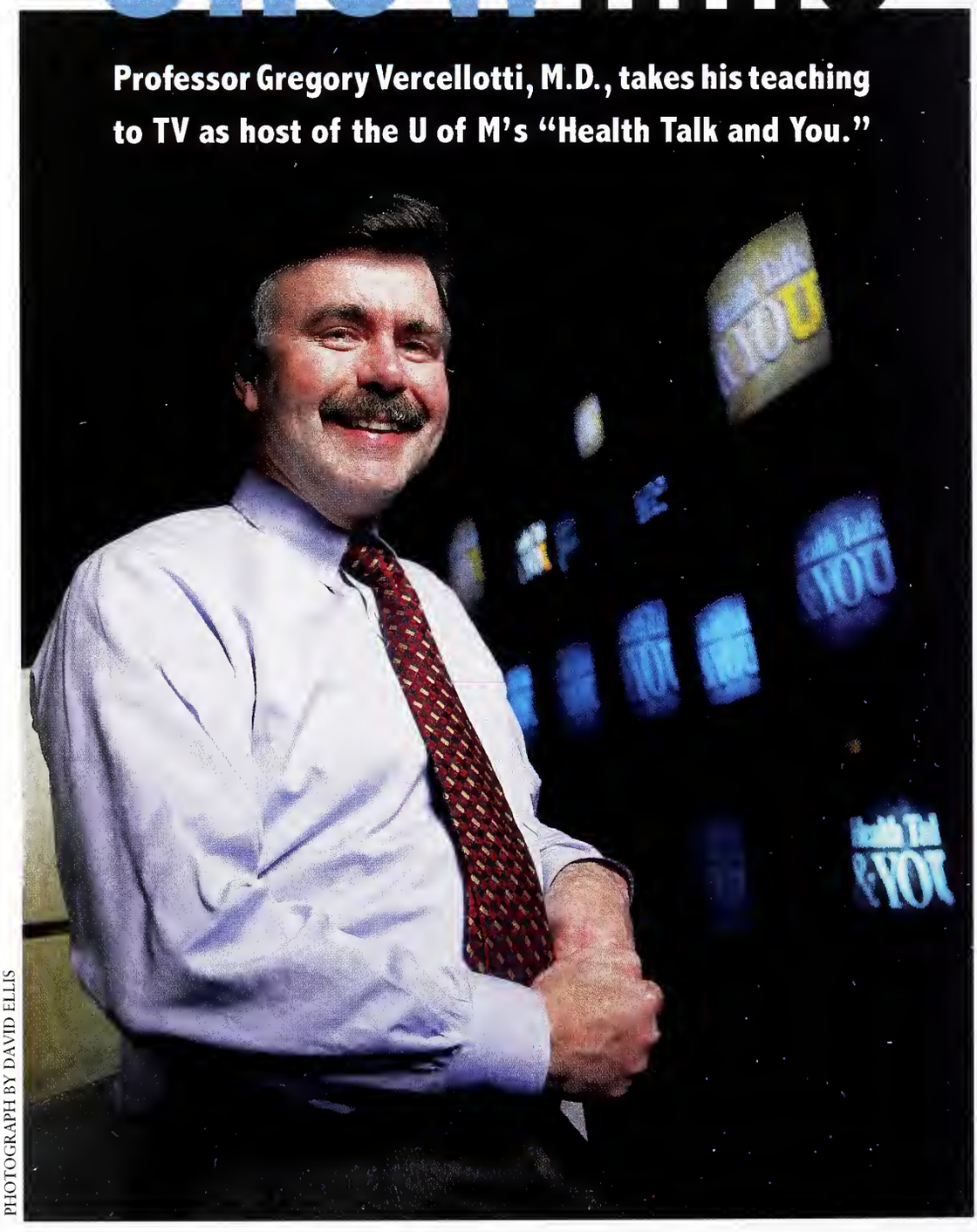
Anatomic studies reported in the literature have shown an increased number of beta cells in the proximal pancreas and decreasing concentration in the tail of the pancreas. Conversely, the same studies have shown increased numbers of alpha cells in the body and tail of the pancreas, which produce glucagon.

This may explain why resections of the head and neck of the pancreas cause severe diabetes more often than resection of the entire pancreas. And resection of the body and tail of the pancreas infrequently produces diabetes, as exemplified by the resection of the distal pancreas for chronic pancreatitis.

*Donald W. Hannon, M.D.*
*Surgeon (retired)*
*Oakdale, Minnesota*
*Zoltan Posalaky, M.D.*
*Pathologist*
*St. Paul, Minnesota*

# Showtime

**Professor Gregory Vercellotti, M.D., takes his teaching to TV as host of the U of M's "Health Talk and You."**



PHOTOGRAPH BY DAVID ELLIS

Frank in Minneapolis wants to know whether he still needs to watch his cholesterol now that he's past 70. Steve in Minnetonka wonders whether drinking red wine will help keep his arteries open. Madge, who had open heart surgery five years ago, wonders if any new surgical procedures have been developed recently. Gregory Vercellotti, M.D., the University of Minnesota Medical School's senior associate dean for education, reads each question to three medical experts seated around a boomerang-shaped wooden table, who do their best to answer in language the lay public will understand.

It's another episode of "Health Talk and You," the half-hour informational TV series developed by the U that airs weekly on Twin Cities public television. As program host Vercellotti explains at the start of each show, it's an opportunity for consumers—Vercellotti prefers the term "patients"—to ask questions of some of the best and brightest minds in the field of medicine.

**"The great secrets of the 'shaman physician' are now on the Internet and Channel 17 every week."**

This week, appropriately enough for a show taped on Valentine's Day, the topic is heart disease. During the preceding week, the show's staff collected phoned-in and e-mailed questions on the topic from viewers and forwarded them to Vercellotti, who recruited and "prepped" the three cardiac specialists for that week's panel.

The Medical School co-sponsors the show—which variously draws 20,000 to 50,000 viewers—with the Academic Health Center, Minnesota Medical Foundation, University of Minnesota Physicians, and Fairview Health Services.

Now in his fourth season as host, Vercellotti receives no salary from the show. "I get paid in hundreds of compliments and acknowledgments. I'm more than compensated. Plus, it's fun," says Vercellotti, a hematologist and vascular biologist who joined the U of M staff in 1979, three years after graduating from the University of Illinois College of Medicine. He succeeded Regents Professor Paul Quie, M.D., who hosted the show for its first nine seasons.

Vercellotti says his "Health Talk and You" role culminates his long-standing interest in educating the public. "I've realized how many misperceptions and misconceptions we had growing up about medicine and health, and have wanted to be sure that people understand the importance of health maintenance, and what's available to them to lead healthier, happier lives."

The ninth of nine children raised in a blue-collar family in Joliet, Illinois, Vercellotti says, "As kids, we saw doctors as gods and pillars of the community, devoting their lives to relieving suffering. Medicine was mysterious and doctors were not to be questioned." Vercellotti's father was a contruction worker, building steel mills in Gary, Indiana, and power stations and interstate highways; his mother worked in retail or factory jobs while raising the children. From 1965 through 1972, Vercellotti spent his summers running a jackhammer and helping pour concrete.

## Opening the Doors

In the early '90s, when Vercellotti served as public policy chair and lobbyist for the American Federation of Clinical Research, he helped develop several public education programs. In response to data showing that girls' interest in the sciences drops off sharply between ages 11 and 13, he worked with the Girl Scouts of America to bring hundreds of scouts to the AFCR's annual meeting, for programs on molecular biology and the genome project.

He also brought the idea of youth programs to the public policy committee of the American Society of Hematology, which last year staged an interactive program for 500 inner-city kids at its annual meeting in New Orleans. "I'm hoping programs like that induce children, especially from diverse backgrounds, to consider careers in the health professions," Vercellotti says.

By Dan Emerson

As senior associate dean for education, Vercellotti oversees education at the Medical School, including admissions, curriculum, student academic support and progress, as well as the M.D./Ph.D. and Rural Physician Associate programs, among other duties. He also helped launch the U of M's popular Mini Medical School last fall (see related stories, pages 20–24). "I wanted to open the doors of this mysterious castle—the Medical School and Academic Health Center—to the public.

"I think, in general, the profession and the medical schools have not reached out enough to the public," says Vercellotti. "There are many wonderful examples in which medical schools have developed clinics in underserved areas, but I think most American medical schools have taken an ivory tower approach." At the university, however, medical students started the Catalyst program, in which grade school students—primarily from inner-city schools—can discover what medical school is like, by using a stethoscope, suturing pigs' feet, and examining a virtual patient. "Reaching out to the community is very important, but not in a paternal, arrogant fashion," says Vercellotti. "It's really a partnership."

During his tenure as "Health Talk" host, Vercellotti and his colleagues have incorporated more videotaped segments and other visuals as a break from the "talking heads." They've also begun presenting public health topics, such as the societal cost of aging, pets and health, violence against women, and the "MRI revolution." The shows on topics such as diabetes, arthritis, menopause, and headache have been the most popular.

The producers also switched from live broadcasts to taped shows, a change that gives them the flexibility to "shape the show so we can highlight what is really new in a particular field." In addition, the panel has been opened up to physicians outside the university. "We try to find the best person in town, regardless of their affiliation," says Vercellotti. "For example, the best person in town on chronic fatigue syndrome is [Dr.] Allan Kind; Allan is on our clinical faculty, but he is primarily a Park Nicollet physician."

Over his career, Vercellotti has noticed an increase in both the amount and the sophistication of health knowledge among the public. "Fifteen years ago, people were interested, but they really wanted to know, 'Who's the best person to go to?' Now it's much more along the lines of 'What is the best thing to do about a high PSA?' "

Vercellotti likes the change. "I think this is one of the best things that's happened in American medicine," he says. "The great secrets of the 'shaman physician' are now on the Internet and Channel 17 every week, so patients can make better decisions about the health care options they may have."

### At a Glance

**Gregory Vercellotti, M.D.**

**Age:** 49

**Education:** 1972, B.S. in psychology, University of Illinois-Urbana.

1976, M.D., University of Illinois College of Medicine.

1976–79, University of Wisconsin, internal medicine resident.

1979–82, University of Minnesota, hematology oncology fellow.

**Family:** Wife, Jane Eshkon Vercellotti, florist and equestrian trainer.

**Hobby:** Golf. Helped start annual Minnesota Medical Foundation tournament.

### When to Watch

During the season, "Health Talk and You" is taped Mondays at 7 p.m. at the University of Minnesota's Rarig Center and airs Tuesdays at 7 p.m. on KTCI Channel 17. Starting May 6, the show will move to a 5:30 p.m. Saturday time slot on Channel 17. It's repeated at 1:30 p.m. on Thursdays on KTCA Channel 2, and also airs periodically on Metro Cable Channel 6, a community access station. Thirty-two shows are produced each season. From June to September, the top-rated programs from the preceding season are rebroadcast.

## Humor and Charm

Vercellotti downplays his skills as a TV moderator. "I'm not a professional TV person—far from it. I

know I'm just an amateur." Still, the role suits him well. Under the glare of the TV lights, the Illinois native seems both avuncular and authoritative, projecting the traditional bedside manner viewers have come to expect from those who play doctors on television—and from doctors who play themselves.

In adapting to his TV role, Vercellotti says, he has relied heavily on the tutelage of the show's ranking veteran, Karen Boros, who serves as an adviser, executive producer Mary Kelley, and director Susan Tade. Boros, a former WCCO-TV reporter and now an adjunct professor of journalism at the University of St. Thomas and College of St. Catherine, gives Vercellotti high grades.

"There's no other way to say it—he has lots of charm," Boros says. "He has a good sense of humor, and it shows in his face. We've worked to get his comfort level up on TV so all of that can kick in, and I think we're there."

One lesson he learned early on, Vercellotti says, is the importance of "showtime." "We only have 30 minutes, and 'showtime' really means that you're 'up' for 30 minutes. It means having that voice that projects, the smile, the enthusiasm. ... I'm also struck by how very carefully people [viewers] listen ... and when you say something, you have to be very careful not to be flippant. Sincerity goes a long way. And people can pick up that sincerity."

Although Vercellotti appreciates the public's positive response to his show, he doesn't aspire to celebrity status. "I'm amazed that people recognize me at Kowalski's, and the butcher looks to see what kind of meat I buy and asks me if it's healthy or not. I'm amazed that people comment about the show when I'm checking out at Dayton's or wherever."

When the show was taped on Seniors' Day at the Minnesota State Fair last summer, Vercellotti was stunned that some people wanted autographed photos. "I gave away 150 of them. It was quite embarrassing." MM

*Dan Emerson is a freelance writer in Minneapolis.*


**North Central Medical Conference**
Presents An Exciting Trip From Minneapolis/St. Paul

***THE SOUTH OF FRANCE***



**October 13-21 & October 20-28, 2000**

***$1,199*** **Per person, double occupancy. (Plus government taxes.)**

**PROVENCE** - a wonderful climate in an exceptional land, a profusion of color and fragrance, and fields of lavender and olive groves, almond trees and vineyards. The Provencal landscape and the intensity of the light have played a key role in the evolution of modern painting. It is here, in the South of France that you will find the world that inspired many of the great impressionist painters...Matisse, Cézanne and Van Gogh. Provence is one of nature's treasure troves and an historic wonderland you will long remember.

*Optional excursions include: Aix-en-Provence; The Camargne; Avignon; Chateauneuf-du-Pape; Les Baux-de-Provence and more!*

**THE FRENCH RIVIERA** - an oasis of color at the edge of the sparkling Mediterranean. A mirror reflecting luxury and simplicity, a rich and varied cultural scene and the wonderful art of relaxation. From the coastline dotted with old fishing ports to sunbaked stones in ancient hilltop villages, to the glittering principality of Monaco...try your luck at the famous casinos. Beautiful days, beautiful nights are yours to enjoy.

*Optional excursions include: Monaco, Monte Carlo; Nice, St. Paul de Vence, Grasse; Monte Carlo by Night and more!*

**AVAILABLE TO MEMBERS, THEIR FAMILIES AND FRIENDS.**
***For additional information and a color brochure contact:***

**GLOBAL HOLIDAYS**
8000 West 78th Street, Suite 345, Edina, MN 55439-2538
**(952) 918-8950** Toll Free:**1-800-842-9023** FAX **(952) 918-8901**



**RIVERWOOD**
HEALTHCARE CENTER

Riverwood HealthCare Center is a growing, progressive rural health care facility, located in the lakes vacation area of central Minnesota. We are currently recruiting for two

**FAMILY PRACTICE PHYSICIANS**

Join our professional staff of eight physicians, four nurse practitioners, and enjoy the support of a dedicated staff of health care professionals in continuing our forty year tradition of providing high quality professional health care to the year round and seasonal residents of our area.

- Beautiful rural community on the Mississippi River
- Access to multiple recreational activities
- Within two hours of the metro communities of Duluth, Minneapolis, and St. Paul
- Excellent local educational facilities
- Competitive salary and benefits package with signing bonus & loan repayment option & moving allowance.

For more detailed information, please contact Teresa in Human Resources at:
phone: 218-927-5587 toll free: 888-900-3934
fax: 218-927-5575
email: tjacobson@RHHC.sisunet.org

# Medical Consumers Browse a Chaotic Cyberspace

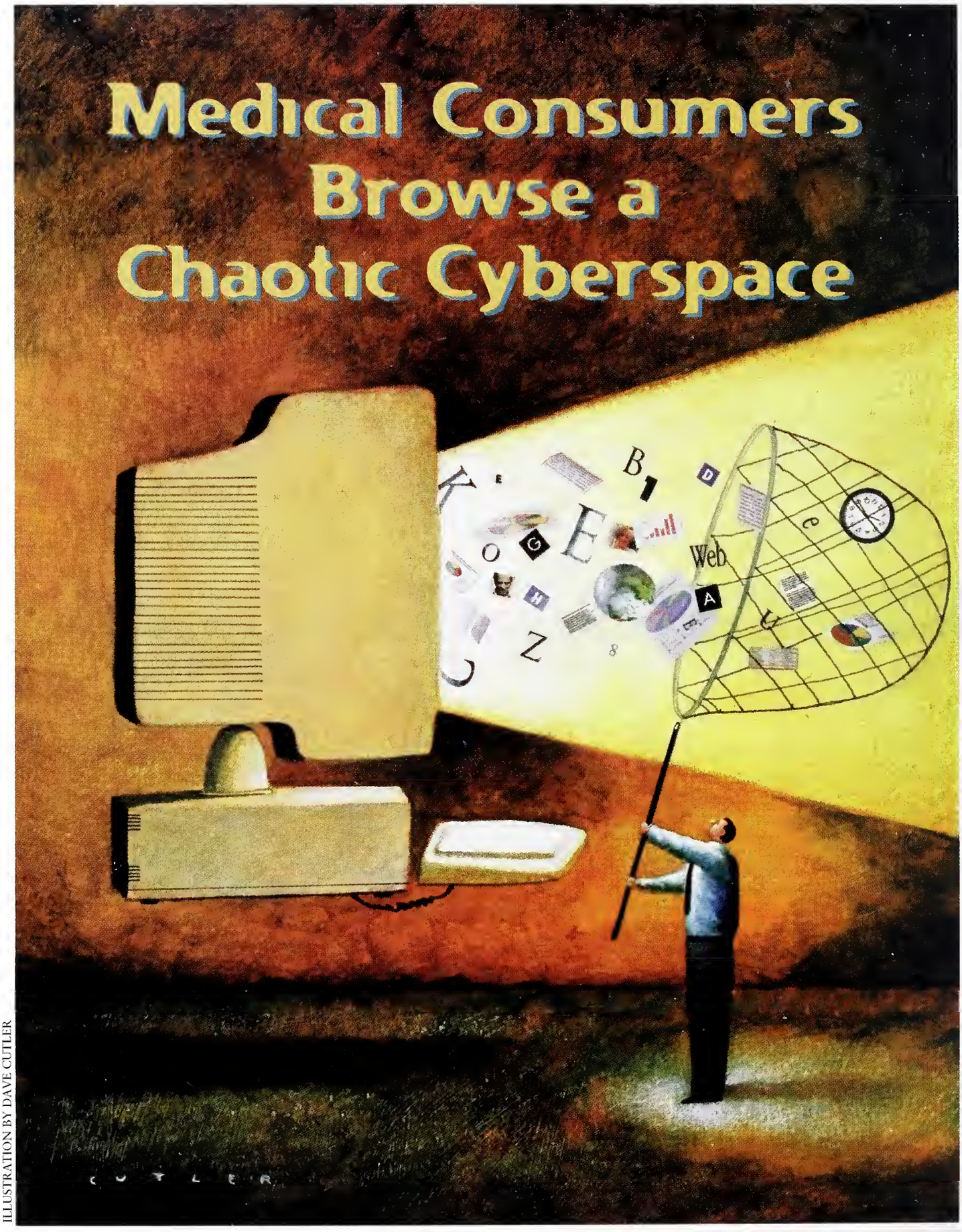



ILLUSTRATION BY DAVE CUTLER

**A search for medical information on the Internet turned up good information–as well as some that's questionable. What patients need now is a guide to tell the difference.**

CHARLES R. MEYER, M.D.

"Go look it up." Close your eyes, and you can hear your mother or father exhorting you to reach for Webster's or the World Book. Today's kids still hear those words, but they reach for their mouse and search the Web rather than Webster's. In a recent *New Yorker* cartoon, a father instructs his son to "go ask your search engine." Perhaps no cultural or technological happening since the automobile has changed American life as much as the Internet. It has become entertainment center, shopping mall, coffee klatch, and library. And like an electronic Liberace, it changes its costumes daily, if not hourly.

The Internet's constant metamorphosis is both its allure and its danger. Instant information, glitzy graphics, and fabulous freebies dazzle us daily. But the information can be flawed, the graphics empty, and the freebies deceptive. For idle browsers, such defects are merely annoying; for those seeking crucial medical information, they can be dangerous. A recent *Good Housekeeping* article about medical information online dubbed the Internet "a free-for-all, unregulated and unedited." Diving into this mêlée as a medical consumer is daunting.

## The Medical Internet

The Internet is a natural medical resource for consumers. It's cheap, it's fast, and it offers a wide swath of information from diverse sources. It promises a library without the walking and stacks-hunting, and an encyclopedia without the pages and obsolescence.

But the promise has pitfalls. Because it's cheap, almost anybody can put up a Web site, and the patient traveling the Internet encounters faceless gurus whose only claim to legitimacy may be an attractive Web page. Because the Internet is fast, new information can be posted quicker than any critic can evaluate it, and the junk/quality ratio is high. And because the information is vast and its organization chaotic, a search for answers to even simple questions can leave the searcher frustrated and reaching for the World Book.

Despite these drawbacks, consumers are looking to the Internet to satisfy a variety of medical needs. As a result of the e-commerce boom, patients can buy medical equipment, prescription drugs, herbal remedies, or insurance with a few mouse clicks and a Visa. Drugstore.com, Soma.com, and PlanetRx allow patients to obtain prescription drugs online. A January 1999 *Wall Street Journal* article featured retired Edina broker Wayne Josephson, who found a second, lucrative career selling the "Mark McGuire strength drug," androstenedione, over the Internet. eHealthInsurance.com, an online brokerage for 20 insurers, recently reported that its sales of policies were doubling monthly. And, in a capitalistic, dubious move, Medicine Online Inc. plans to auction facelifts and tummy tucks on its Web site.

Surfing patients can also find medical advice online. To get a cyber equivalent of Aunt Sadie's helpful phone call, patients can participate in medical discussion groups that offer emotional support and handy tips on medical maladies from the benign to the malignant. Although the advice may be only as valid as Aunt Sadie's latest remedy, discussion groups are popular, says self-help proponent Tom Ferguson of Harvard's Center for Computing, because "patients ... feel much more free to state what they want in these situations, whereas they might not be comfortable saying what they want to a specialist in a hospital or clinic." Professional medical advice also is available. A July 4, 1999, *New York Times* article featured Ask the Doc, a free service of AmericasDoctor.com, which is intended to "fill the gaps ... at a time when managed care has put greater distance between doctors and their

# For complete healthcare Internet services, there's just one name to remember




THE INTERNET RESOURCE DESIGNED EXCLUSIVELY FOR HEALTHCARE PROFESSIONALS

**A total online service featuring healthcare resources, helpful links and professional services**

In your business, quick access to information is critical. The MMIC Medical Services Portal is a medical provider's best choice for complete online services, providing physician practices with the tools and technology needed to remain strong and competitive in today's rapidly changing marketplace. MMICmedportal provides you with online business tools, technology and information system solutions as well as clinical and practice management resources, local news and weather plus a nationwide physician directory. Whether you need to search for possible side effects of the latest FDA approved drug, obtain reference material on a rare congenital condition or contact a medical colleague from across the nation, you can count on MMICmedportal.

**Save time and improve your efficiency**

Chances are you already rely on the Internet at home. Why not make the Internet a part of your office as well? Brought to you by Midwest Medical Insurance Company, MMICmedportal was designed by medical professionals for medical professionals...your assurance of reliable information you'll find at your fingertips.

***To learn more about how MMICmedportal can work for you, call 1-800-328-5532 or visit us at www.mmicmedportal.com***

The MMICmedportal is a service of the Midwest Medical Group of Companies

MMIC™ medportal

*Progressive Internet Services for Healthcare Professionals*




patients." Cyberdocs.com provides pricier chats with board-certified specialists at $50–$100 for each "virtual house call."

Perhaps the most common medical use of the Internet is as a reference. An estimated 33 million Americans went online for medical information in 1999. According to Harvard's Ferguson, "A very determined consumer in pre-Internet days could go to the medical library, call all the specialists, and do the research. But now you can do the research in your underwear at midnight at home in about 1/1,000th of the time." Ferguson and others are promoting the Internet as a crucial way to help patients help themselves.

Consumer demand for medical content on the Internet has not gone unnoticed. Medical Web site owners are vying for legitimacy with big money and big names. The media-savvy former Surgeon General C. Everett Koop lent his name and expertise to DrKoop.com and became a multimillionaire when it went public. Healtheon, one of Netscape founder Jim Clark's many startups, expanded its original mission as a medical commerce broker by buying WebMD for $8 billion to create, according to its Web site, "the first end-to-end Internet health care company connecting physicians and consumers to each other and to the entire health care industry." Since the arrival of George Lundberg, exiled editor of *JAMA*, at Medscape, the content for consumers and physicians has blossomed.

## A Medical Tour

I decided to take off my white coat and explore the Internet as a patient. I realize I can't erase years of medical training and practice and evaluate Internet content as a medical naïf. But years of talking to patients has given me a feel for what kind of information patients are seeking. I also tried to use an editor's eye to evaluate information for logic and clarity.

Although evaluating medical information on the Internet by taking a snapshot tour is like visualizing a house by looking only at a downspout, I attempted to at least capture the outlines using two search strategies. First, I used one of the many search engines, Infoseek, and searched for information about one medical condition. For my second approach, I selected five sites offering general medical information from reputable sponsors.

## Keyword: Low Back Pain

Because it's a topic currently of pressing interest to me, I decided to search on the keyword "low back pain" using Infoseek. The top six out of 6,954 hits were:

### 1. http://www.sechrest.com/mmg/back/backpain.html

I was greeted with a page entitled "A patient's guide to low back pain" with a mortarboard-topped figure (perhaps intended to be a cartoon of back muscles?) pointing to a chalkboard with the words "Welcome Back to School." After this less than enticing come-on, I was prepared for a flaky promotional sponsored by Bonecrushers of America. Instead, I found a comprehensive discussion of anatomy, physiology, diagnosis, and treatment of low back pain, including links to descriptive pictures of back anatomy and back exercises and AVI (digital) movies showing discs herniating into the spinal canal. (So realistic it made my back hurt.) The document, clearly intended for both public and professional use, even had a section at the bottom where professionals could put their name or logo for customized handouts to patients.

The identified sponsor was the Medical Multimedia Group. Curious, I went to the root server address, www.sechrest.com, and found that the host was Randale Sechrest, M.D., an orthopedic surgeon with an impressive informatics CV, practicing in Missoula, Montana. His company, Medical Multimedia Group, LLC, is "involved in development of computer-based patient education materials and continuing medical education. The company specializes in development of interactive multimedia materials for stand-alone use or distribution via the World Wide Web." A separate browser pops up when you get to www.sechrest.com, advertising Dr. Sechrest's book "eMedicine: Healthcare in the Era of the Network Economy"; the introduction and first three chapters are available online.

### 2. http://www.backmagic.com/

Backmagic's site proclaims, "You don't have to live with back pain! Over 280,000 satisfied customers! Dr. Johnston's Back Magic and Back Magic Belt for Golfers." Hosted by the Posture Research Institute in Toronto, Ontario, the Back Magic home page shows a picture of a woman in a garden, standing straight, wearing a smile, shorts, a tank top, and Dr. Johnston's Back Magic Belt, available for $39.95 from its secure server page.

### 3. http://www.aaos.org/wordhtml/pat_educ/lowback.htm

Sponsored by the American Academy of Orthopedic Surgeons and part of its patient education section, this



site contains one graphic and two pages of text about low back pain. It is much less comprehensive than Dr. Sechrest's site, reading like a quick summary a physician might give a patient in a brief office visit.

### 4. http://www.rcgp.org.uk/backpain/index.htm

This was a defunct address on the Royal College of General Practitioners' Web site.

### 5. http://www.lowbackpain.com/

It was inevitable that somebody would snare the Web address "lowbackpain.com." Dr. Arnold J. Weil of the Rehabilitation Medicine Associates of Atlanta was the lucky winner. Clicking on "Introduction," the surfer sees a fork and spoon with the caption, "We don't believe in the knife." The first paragraph of text reinforces the Rehab Associates' mantra: "The purpose of this Web page is to make you more aware of back pain and the many nonsurgical treatment options. You will find information here about the anatomy of the spine, the causes of back pain, and available nonsurgical treatment options. In addition, you will learn of other available NONSURGICAL treatments for back pain and other orthopedic injuries." The introduction ends with an advertisement for appointments within 48 hours. The Web page's subsection "About Dr. Weil" contains a bio of the doctor, a history of the practice, (which he founded in 1993), and directions to the clinic.

### 6. http://text.nlm.nih.gov/ahcpr/lbp/www/lbpptxt.html

The sixth hit was a Web version of a pamphlet available from the Agency for Health Care Policy and Research. It provides a brief synopsis of back pain with the repeated message to "see your doctor." The sole graphic was a pen drawing of the back muscles that added little to the reader's understanding. An interesting sidelight was a questionnaire for the reader to fill out before going to the doctor, basically covering the history of the present illness (When did the pain start? What makes it worse?) and previous medical problems.

My brief tour of low back pain via Infoseek revealed that accurate, medical information is available on the Internet. The powers of multimedia do enhance the learning experience. Most searches will produce many more hits than wanted, and the first hits may not be the best. Searches can also lead to quack remedies, snake oil, and dead Web sites.

## Multilink sites

Multilink sites organize their information around home pages containing links to subsidiary pages or other organizations' Web sites. I chose Web sites sponsored by the U.S. government, a nonprofit health company, a commercial organization, and the American Medical Association.

### 1. http://www.nlm.nih.gov/medlineplus/

MedlinePlus is a Web site produced for consumers by the National Library of Medicine at the National Institutes of Health. It touts advertising-free, "accurate, current medical information."

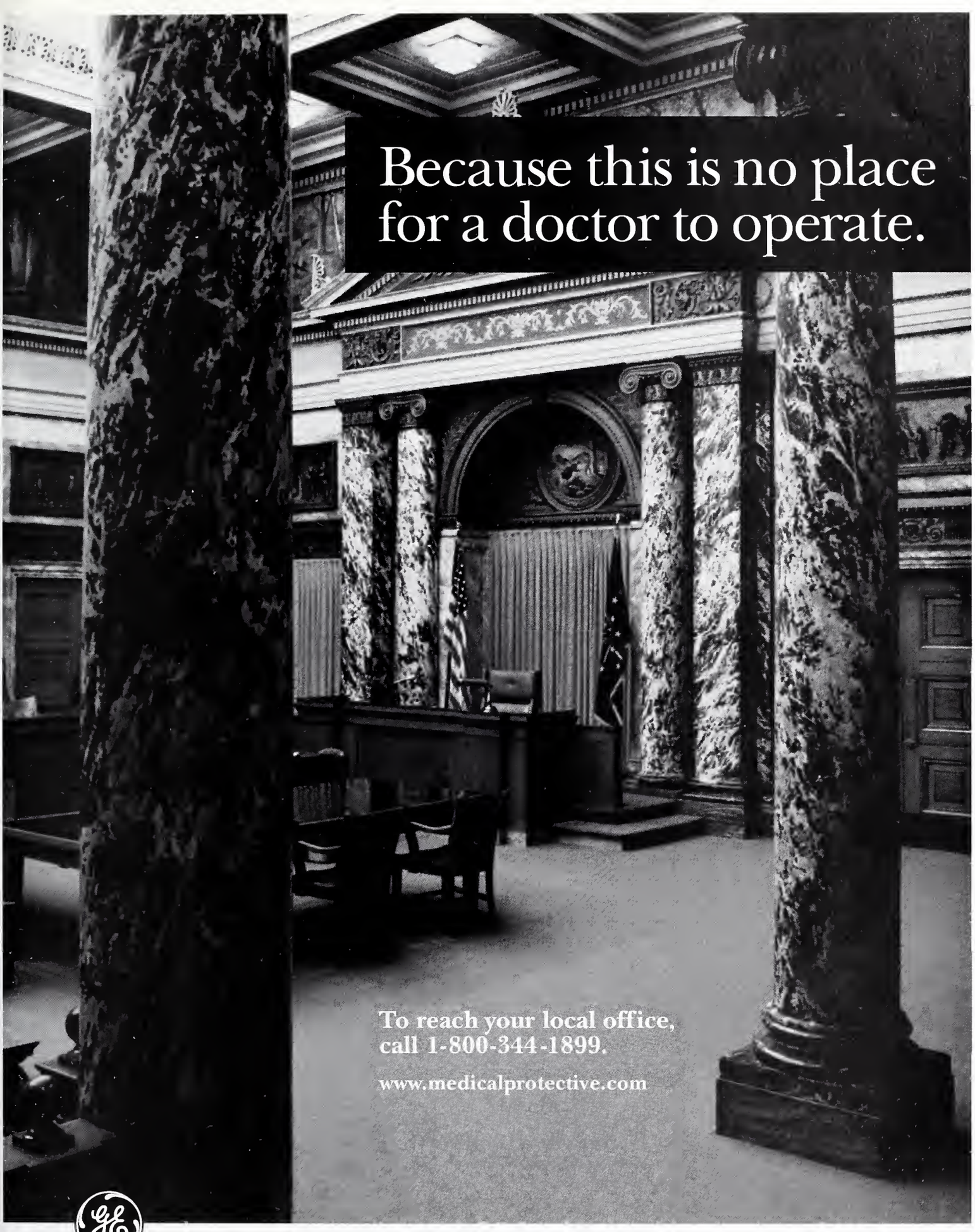
The visitor to Medline Plus can choose a medical topic from an alphabetical or pop-down list of organ systems, or search with text input as with Internet search engines. Pick "shingles" in the alphabetical list and you can drill down into one of seven submenus, including a short NLM/NIH synopsis of the diagnosis and treatment of shingles, general overviews from a variety of organizations, clinical studies and trials, and links to sites on specific complications of shingles, like post-herpetic neuralgia and Ramsay-Hunt syndrome.

### 2. www.mayohealth.org

The Mayo Clinic's consumer information Web site, Health Oasis, incorporates many of the classic Web page features with navigation links like "home" and "search" at the top and bottom of the page and attractive graphics with a visually pleasing layout. Like the NLM page, it includes a search option and a topical index. It also features an eye-catching "New on Oasis" subsection with intriguing titles like "Blood thinners and avocados" and "Condoms—Use 'em or lose 'em." Snagged by the snappy headline, I went to the condom article and found a succinct explanation of the pitfalls of not using a condom or not using it correctly, with links to articles on HIV and STDs. Selecting "Men's Health" from the topical list produced a page with information on prostatitis, facelifts, and liposuction.

### 3. www.medscape.com

Although Medscape is primarily a site for health professionals, it has teamed with CBS to produce CBS HealthWatch. The news media influence is obvious from HealthWatch's home page, which sports a newspaper-like masthead and main sections entitled "Features" and "Health News." Health News contains articles mostly from Reuters Healthline that resemble daily newspaper pieces in length and content, with the addition of a specific journal reference. "Health Channels" allows the surfer to browse a topic like "heart health" and find




***The Medical Protective Company®***

features such as "Women, Beware: That sweaty feeling and stomachache could be a heart attack," health news like "Laser zaps clots away in stroke treatment," and "Ask the Expert," which presented a question on cholesterol answered by a faculty member of the Beth Israel Deaconess Medical Center.

4. http://www.ama-assn.org/consumer.htm

Organized medicine has dipped its toe in the waters of online consumer health information. The AMA's consumer health information page, AMA Health Insight: Online Health Information for Everyone, has medical news headlines listed top center using a difficult-to-read paragraph style. As in HealthWatch, these are wire service articles. Pop-down menus below the news let the visitor select specific conditions such as back pain and baldness or general health topics like antibiotics and healthy recipes. These discussions included more technical language than some of the other sites and had no graphics to complement the teaching. The AMA site advertises the coming of medem.com, a future "supersite" for consumers, co-sponsored by the AMA and six subspecialty groups. The description of medem.com promises editorial independence, professionally guaranteed accuracy, and advertising regulation.

These multilink sites are one-stop shopping centers and a starting point for further investigation. But like the Megamall, they can be time-consuming to navigate. Commercial sites can suffer from aggravating covert or overt advertising or media sensationalism.

## Conclusion

The revolution that is the Internet is well under way in medicine. Today's practicing physician often hears, "I was doing some searching on the Internet" and may cringe at the time-devouring questions that ensue. Yet answering patients' questions, regardless of their origin, should be a large part of why doctors are doctoring.

Patients are hungry for medical information and are finding sustenance on the Internet. As Randale Sechrest says, "Consumer demand is increasingly driving the development of new paradigms for the delivery of health care. This is resulting in the emergence of totally new ways of transacting health care 'business.' Many of these new paradigms are totally foreign to the traditional health care establishment and have been—and will continue to be—perceived as dangerous and unacceptable to the medical establishment. But the changes occurring today are not being driven by the health care establishment. The market is in control."

A California HealthCare Foundation study predicted that by 2005, U.S. consumers "will expect high levels of choice, control, customer service, interaction with their health care providers, and access to information. They will use the Internet to help meet those expectations ... [and] will seek information from the thousands of Web sites dedicated to health and health care. ... A number of approaches, including ratings services and trusted brands, will help consumers sort through the noise."

What patients need from the health care establishment is direction, a consumer's report on Internet medical knowledge that will guide the creation of a better library and comprehensive encyclopedia to empower and educate them. MM

*Charles Meyer is editor-in-chief of* Minnesota Medicine.

### A Sampling of Reliable Consumer Internet Sites

1. http://cpmcnet.columbia.edu/texts/guide/

Columbia University Physician and Surgeons Complete Home Medical Guide has a wide array of information, including health costs, choosing an HMO, preventive medicine guidelines, and disease information organized by organ system.

2. http://www.48hours.net/

Medical news, including latest headlines, topical news, and RealAudio files with experts discussing issues.

3. http://www.pdr.net/gettingwell/

Medical Economics/PDR-sponsored site with patient information about allergy, breast cancer, osteoporosis, depression, and arthritis.

4. http://onhealth.com/ch1/index.asp

Recently acquired by Healtheon/WebMD, this is a comprehensive, well-organized medical Web site.

5. http://www.mdnetguide.com/directory.cfm?catlevel=top&category=10

This subpage of MDNetguide, The Physicians' Internet Directory, contains "patient-friendly sites" arranged by disease or topic (like managed care or mental health). Warning: Some of the links (e.g., kidney disease and genetics) are empty. Some of the links seem less than patient-friendly (e.g., complete contents of the 1999 *Archives of Neurology*).



MEDICINE
BUSINESS
COMPASSION



*Where Business Medicine and Compassion Converge*

- Physician Leadership College
- MBA in Medical Group Management
- A continuum of programs for physicians, clinic administrators and other health care professionals

**Call 651-962-4128**

*The University of St. Thomas admits students of any race, color, creed and national or ethnic origin.*

LEARNING FOR A LIFETIME

UNIVERSITY OF ST. THOMAS
GRADUATE SCHOOL OF BUSINESS

Send us your comments
on this issue of *Minnesota Medicine:*

mm@mnmed.org

**MEDICAL DIRECTOR**

Director needed for a progressive multidisciplinary medical clinic.

Great opportunity to become a medical director and regain control to practice real medicine the way doctors used to.

Start your family practice in this established, independent and growing medical clinic.

- *Located just 20 minutes S.W. of the twin cities*
- *Ideal family oriented community*
- *Work part/full time*
- *Set hours on Monday through Friday, no weekends*
- *Minimal on-call*

Don't miss this opportunity to join a progressive integrative clinic.

**If you are interested in joining our expanding health care team call Dr. David Copp or Mary Copp at (612) 492-2225 or fax your C.V. to (612) 492-6470.**

MULTICARE ASSOCIATES OF THE TWIN CITIES

Multicare Associates of the Twin Cities, a multispecialty/multi-location clinic, located in the northern suburbs of Minneapolis/St. Paul, has available positions for BC/BE physicians in the following departments:

**Family Practice**

**OB/GYN**

Excellent salary/benefits package includes paid insurance, flexible benefits plan, 401K, profit sharing, continuing medical education. Shareholder status potential after one year.

Contact Jeannine Schlottman
Administrator
7675 Madison St. NE
Fridley, MN 55432
612/785-3338
www.multicare-assoc.com

# Mini Med School

## For That Little Bit of Doctor in Everyone

*The University of Minnesota's popular lecture series attracted a public eager for more medical knowledge.*

By Margaret E. Parker

In the age of the Internet, you wouldn't expect an old-fashioned campus lecture series to create a stir. But that's what happened last fall—and again this spring—at the University of Minnesota's Mini Medical School. More than 300 people made their way to Moos Tower on weeknights for six live talks on medicine. Much to the surprise of university officials, the free classes filled within minutes after registration phone lines opened, following an article in the *Star Tribune* announcing the series.

"I sat on hold for 42 minutes before I got through," says Kathleen Holman, 27, one of about 340 students lucky—and patient—enough to claim a spot in the first Mini Med program last October and November. More than 2,000 others were wait-listed. "People were pounding on the door wanting to be part of it," says Jennifer Stumpf, community relations associate in the university's Academic Health Center.

Why the intense interest in attending a set of medical lectures on subjects ranging from the most traditional—anatomy—to the latest in complementary medicine? One answer is that people crave more depth than they find in the daily stream of medical stories in the popular media, says Gregory Vercellotti, M.D., Mini Med host and senior associate dean of education in the Medical School (see profile, page 8). "It reflects people's overwhelming curiosity about the science that underlies clinical treatment and the medicine they receive," he says.

The mini medical school concept isn't new. J. John Cohen, M.D., Ph.D., professor of immunology at the University of Colorado Health Sciences Center, started a program there in 1988 that became the model for scores of others around the country, including at Yale, Emory, and the University of Florida. But an enterprising third-year medical student, Michael Vollmer, was the spark that brought the idea to life at the U of M. An article in the *American Medical News* about a mini medical school elsewhere caught his eye, says Vollmer, chair of the Student Consultative Committee in the Academic Health Center, which includes the School of Dentistry, Medical School-Twin Cities, School of Medicine-Duluth, School of Nursing, College of Pharmacy, School of Public Health, and College of Veterinary Medicine.

"I'd seen a lot of stuff about how poor the information available on the Internet is," says Vollmer. "A lot of stuff on TV is half true." A teaser for an Oprah Winfrey program on hysterectomy further inspired Vollmer to propose the idea as the student committee's project for the year. "I thought to myself, 'You know, if she's doing something like that, she must know there's an audience out there for that type of thing.' "

Several pieces came together at once, including a $10,000 educational grant from Pfizer Inc., says Bart Galle, Ph.D., director of Continuing Medical Education (CME) at the university. "Something is telling us we should be doing this," he says.

Though free to the public, launching the Mini Medical School series cost $26,000, exclusive of secretarial



PHOTOGRAPHS COURTESY OF THE UNIVERSITY OF MINNESOTA

*The Mini Med series gave attendees (Kevin Troy, left, was the youngest) a chance to see medicine up close.*

support and faculty time. Vercellotti said the answering service that was hired to register students was a major—and underbudgeted—expense because of the unexpected flood of calls. The project also was supported by the Academic Health Center and CME. For the spring Mini Medical School, which began in March, Pfizer committed $5,000 and the Minnesota Medical Foundation contributed $12,000.

This winter, a smaller version of the Mini Med School traveled to communities such as Thief River Falls, Mankato, and St. Cloud. "Actually, it's part of our legislative campaign, but it probably doesn't sound good to say that," Frank Cerra, senior vice president for health sciences, told the class on the first night of the fall course. The outstate lectures were co-sponsored by the Minnesota Hospital and Healthcare Partnership.

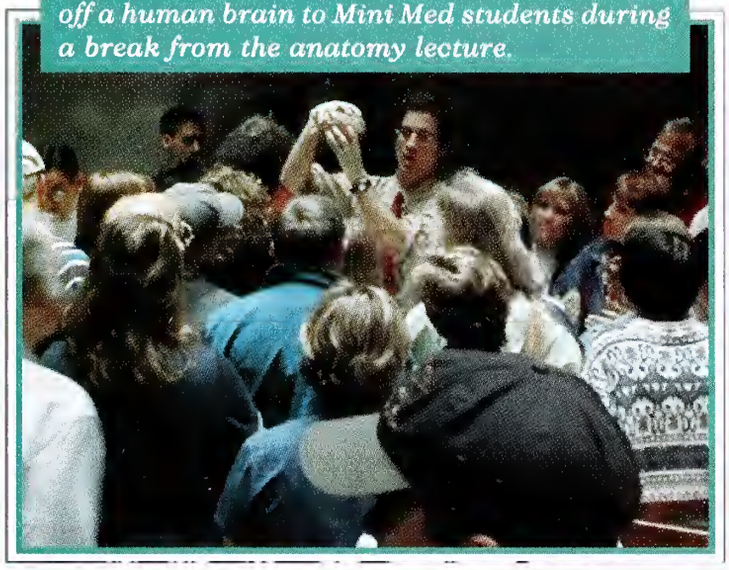
## Great Communicators

Week after week, the instructors seemed as eager to teach as the students were to learn. "They're excited about what they're talking about," says Cathy McGinty, 32, a Minneapolis stay-at-home mother of two with a B.S. in marketing. "They don't make you feel foolish." She was particularly struck by the faculty's openness to questions. "With the HMO-regulated time with your doctor, you don't necessarily get the time to ask those things," says McGinty, who had a question about calcium and vitamins. "Not that my doctors aren't approachable. They're busy."

Holman, a Richfield resident with a B.S. in genetics and cell biology, also noted the lecturers' enthusiasm: "They seem so excited to have us here," she says. A day care provider and mother of a toddler, Holman said the lecture by Michael Osterholm, Ph.D., M.P.H., on infectious diseases was particularly memorable, especially the discussion of food-borne pathogens. "It scared me," she says. "I really scrub my vegetables now. I used to shake them under the faucet."

Much effort went into choosing faculty who could connect with a lay audience, especially on opening night. Stumpf said the planning committee knew the first night had to be a "knockout ... this incredible magical balance between too hard and not worthwhile," to get people to come back. Student focus groups helped identify the most effective faculty for the undertaking. "Who could they think of who would be great?" says Vollmer. The same names kept coming up, he says.

The lecturers were masters of metaphor, making the medical information more accessible by pairing it with the familiar, comparing the thick stomach lining to Vaseline, for example, and dubbing the terminator gene that controls cell growth "the Arnold Schwarzenegger of tumor suppressors." They encouraged questions, answering even when they became personal. After the lecture on complementary medicine, for example, a student asked what dietary supplements the presenters used. "For my patients or personally?" asked moderator Vercellotti, before saying that he takes vitamin E.



*U of M medical student Michael Vollmer shows off a human brain to Mini Med students during a break from the anatomy lecture.*

Vollmer and others emphasized that what distinguished Minnesota's Mini Medical School was the involvement of seven academic disciplines. The planners wrestled with making the program a showcase for the university vs. entertainment vs. serious science. "It was a little bit of a struggle to keep it at as high a level as it ended up being," says Vollmer. "The question was, Do we want to entertain people or do something really different and teach the public?" Judging from the laughter and the questions students asked, they did some of each.

"People liked being challenged," says Resa Jones, a Ph.D. student in the School of Public Health and a key member of the Mini Med curriculum committee.

Vollmer for one was pleased to be able to share his developing expertise with the public. The first night, attendees had the opportunity to examine human organs from the anatomy lab. "Suddenly I look up, and at least 50 people are looking at me holding up a heart, a brain," Vollmer says, amazed by the impact of a last-minute decision to display the organs.

Some see the response to the Mini Medical School as an important signal to administrators university-wide. "This kind of program should be the public face of the university," says Don Gruber, 55, a St. Paul lawyer. "We shouldn't leave it to the athletic department. The 'U' needs 300 people telling all of their colleagues each day what's going on over here," he says.

"And," he adds, "it was great fun." MM

*Margaret Parker is an associate editor with* Minnesota Medicine.

## Final Diagnosis

**At the end of the course last fall, Mini Med students, who ranged in age from 10 to 76 (women outnumbered men by 2 to 1), completed written evaluations. Here are some excerpts.**

"I am a recent recipient of the cochlear implant that I received at the U of M. Before that, I was hearing impaired and deaf for 10 years. My dream was to be an English teacher, but because of my hearing impairment I did not go to college. This has been a dream come true."

"When I graduated from college, very, very few women thought of going to medical school. I always wished I could have been a doctor. The Mini class gave me the opportunity to see if I was right about my interest and aptitude. I was."

"I am so impressed that this course was initiated by medical students. Our future is in good hands."

"Dr. Osterholm's lecture on infectious disease was particularly timely for me. I was exposed to a food-borne illness two weeks after his lecture. Thanks to him, I knew what a calivirus was!"

"I have faced many health-related issues as a layperson. For example, wife, mother, caregiver of elderly relatives, patient myself. I have tried to educate myself on these topics, but appreciate information that I feel is relevant. I like the opportunity to ask questions."

"I was astonished at the complexity of the human body. Holding a heart, a brain, and a set of lungs was truly inspiring. I also am astonished and impressed by how much real medical students have to learn."

"One of the things that I was very impressed with was the student involvement. This community outreach opportunity was terrific."

"What an enormous challenge and task my daughter, who is a first-year medical student, has undertaken."

# Lessons from the Heart

*A Mini Med School participant is awed by the human heart and the transformative power of medical school.*

By Jeremiah Christopher Whitten

Which would you rather do, eat free food or hold a human heart? That was our choice at the Mini Medical School last October when the University of Minnesota opened the doors of its Academic Health Center to the public for lectures from medical school faculty on anatomy, infectious diseases, physiology, genetics, cancer, and alternative medicine.

Three thousand people tried to register; the first 340 to call a toll-free line got to sit in the auditorium where professors of medicine teach heart surgeons, oncologists, and family physicians. One night a week for six weeks, we observed a tiny fraction of the long, arduous, and awe-inspiring training that students go through to become doctors.

> **"I wondered why all these nonmedical people with busy lives gave up their evenings to listen to lectures on cancer and molecular genetics."**

Many young people were in class (including a 10-year-old boy who asked enthusiastic, probing questions). There were also middle-aged and elderly people, including retired couples who arrived each night hand-in-hand for an evening of intellectual invigoration.

The first night, we learned that the human body has 5,000 separate parts, and each part has multiple names, resulting in more than 50,000 named body parts (not including the trillions of cells and billions of genetic subunits that make up human DNA).

Our anatomy professor, Jon L. Pryor, M.D., tried to teach us as many of these body parts as possible in a single lecture. I learned the basics of the muscular and skeletal systems, and enough anatomically correct references to the digestive tract to sound impressive when I discuss my 2-year-old son's inability to hold down certain foods.

I came away from our second lecture with enough information to clear a dining room in 30 seconds. Former Minnesota state epidemiologist Michael Osterholm, Ph.D., M.P.H., a leading expert on infectious diseases and chair and CEO of ican, INC. (see the March 2000 *Minnesota Medicine*), discussed how diseases are transmitted in the air, by physical contact, and in food.

Osterholm discussed farm fields contaminated with sewage, meat contaminated with bacteria, and the difficulty of keeping our food supply safe. He warned about growing antibiotic resistance, the resurgence of diseases such as tuberculosis, and the threat of bioterrorism.

I was enthralled by his lecture—and terrified. For the next three days, I couldn't decide if it was safer to get out of bed in the morning and expose myself to the thousands of pathogens we encounter each day or hide under the covers and surrender to the dust mites that live in my mattress.

In the lobby before each class, I chatted with people about their careers, spouses, significant others, children, and grandchildren. I wondered why all these nonmedical people with busy lives gave up their evenings to listen to lectures on cancer and molecular genetics.

I suppose there were future physicians among us, but I think most people were there out of simple curiosity. Anything that can demystify medicine is worthwhile. Medical issues follow us from womb to tomb, inspiring both fascination and fear. When we are young, knowledge of our bodies fills us with awe and expectation—we can't wait to test our limits. As we age, grow aware of our limits, and watch our bodies slowly deteriorate, that same knowledge becomes foreboding. Still, we cannot resist seeking it.

⇨

None of the medical school faculty betrayed any fear, however. All of our professors stood tall and strong at the lectern as they spoke about their area of expertise.

What impressed me more, however, was the lack of guile and sophistication in the medical students who greeted us at the door each night. They didn't look different from some of the kids in my neighborhood. One evening, four got on stage to speak to us. As they gazed at the room full of friendly faces, they looked ... scared. Several shook as they held the microphone.

I expect doctors to exude confidence, not fear. Somehow, after three years of medical school, another three or four years of residency, and a few thousand sleepless nights, these kids will start saving lives. When does the trembling leave their fingers?

During a break one evening, we were offered a choice: coffee and cookies in the lobby or human cadaver organs (a heart, a brain, and a set of lungs on stage). For about two-thirds of the class, it was a no-brainer: They headed for the exits. But a hundred of us donned latex gloves and crowded onto the stage.

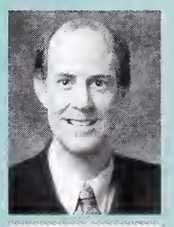
I held a human heart in my hands. I stood silent, awestruck by its form and complexity. But I was equally fascinated by the medical students. I couldn't help thinking that years from now, when my arteries have hardened, it might be my heart that one of these kids holds in his or her hands. (I just hope they get over the shakes by then.)

I passed the heart back to one of the medical students. I envy their endeavor, but I would not choose it for myself. MM

*Jeremiah Christopher Whitten is a media relations consultant in Chaska.*

## By Popular Demand

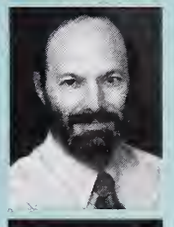
When Academic Health Center students were asked to propose lecturers for the first Mini Med School, this is the team they came up with:



***Anatomy: Your Body's Blueprint***
**Jon Pryor, M.D.**
Associate Professor, Department of Urological Surgery, Medical School



***Infectious Diseases: Examining Invisible Enemies***
**Michael Osterholm, Ph.D., M.P.H.**
Chair and CEO, ican, INC. and Adjunct Professor, School of Public Health



***Physiology: What Keeps Your Body Running***
**Stephen Katz, Ph.D.**
Associate Professor of Biochemistry, Medical School



***Genetics: Jumping into Your Gene Pool***
**Vivek Kapur, Ph.D.**
Associate Professor, College of Veterinary Medicine, Department of Veterinary PathoBiology



***Cancer: When Good Cells Go Bad***
**Tucker LeBien, Ph.D.**
Professor and Deputy Director, Cancer Center, and Professor, Department of Laboratory Medicine and Pathology, Medical School, with co-presenter



**Tanya Repka, M.D., F.A.C.P.**
Assistant Professor, Hematology, Oncology, and Transplant Division, Department of Medicine, Medical School



***Complementary Care: Merging Science with Ancient Wisdom***
**Mary Jo Krietzer, Ph.D., R.N.**
Director, Center for Spirituality and Healing, with co-presenter



**Ila Harris, Pharm.D.**
Assistant Professor, College of Pharmacy, and Clinical Assistant Professor, Department of Family Practice and Community Health




## Now Is the Time to Renew Your Membership for 2000

**Membership renewal materials for the year 2000 are in the mail.**

**If you haven't already done so, renew your membership today to ensure continuity of benefits and services.**

The MMA membership department will be glad to assist you in renewing your 2000 membership.

Call 800/DIAL MMA or 612/378-1875 to renew your membership by phone or to have renewal materials faxed to you.

**Save time. Renew today.**

MMA
MINNESOTA MEDICAL ASSOCIATION
MEDICINE'S VOICE IN MINNESOTA

# Health Policy Hub

*By Jodi Ohlsen Read*

The National Institute of Health Policy, a partnership between the universities of Minnesota and St. Thomas, hopes to become the health care information center for the Upper Midwest.

Why is managed care experiencing a consumer backlash? What went wrong with the original concept and how can we recover? Why are Twin Cities Medicare beneficiaries getting less for their money than their counterparts in Miami? Does the $17 billion Veteran's Affairs medical system, the nation's largest integrated health system, face extinction or can it be revitalized? These are the sorts of issues that shape health care in the United States, affecting millions of patients, health professionals, employers, and insurers. They're also the sorts of thorny issues the National Institute of Health Policy hopes to untangle by promoting debate and featuring such luminaries as Stanford management guru Alain Enthoven, Ph.D.; Dartmouth Medicare expert John Wennberg, M.D., M.P.H.; and former VA Under Secretary for Health Kenneth Kizer, M.D., M.P.H.

Created in 1998 and led by former U.S. Sen. David Durenberger, the NIHP is a partnership of the universities of Minnesota and St. Thomas, the state's largest private and public universities. The NIHP combines research and dialogue among leaders in health, focusing on the seven-state Upper Midwest, with the goal of improving health care by improving health care policy.

"For many years health care providers, organizations, and policy researchers from the Upper Midwest have been the spark of innovation for much of the current American health care system," says Daniel McLaughlin, who was recently named executive director of the NIHP. "Today the need for change in the system is even more acute."

The institute, which is housed at the University of St. Thomas but funded by both universities, as well as by grants and donations, combines the resources of the University of Minnesota with St. Thomas's "expertise in


DAVID DURENBERGER

systems that support the delivery of medical care," according to University of St. Thomas Vice President of Academic Affairs Ralph Pearson, M.D. "Our intent is to keep Minnesota on the leading edge of how we provide health care and support. We also hope to have national influence in health care in the 21st century."

It was a natural marriage, according to Frank Cerra, vice president, Academic Health Center, University of Minnesota. "The Academic Health Center brings its research strengths, education strengths, and an environment of discovery and dissemination. The Academic Health Center trains 70 percent of health practitioners in the state, and the School of Public Health is one of the top seven schools in the U.S. dealing with health outcomes research and health policy research. St. Thomas has similar missions and has an exceptional program in training people in administration, with a focus on health administration. With David Durenberger's strengths in health policy and education, it seemed to be the right thing for us all to come together."

## *Knowledge Is Power*

The NIHP emphasizes education, working from the premise that sound public policy requires good information—information that results from opinion gathering, research and testing, education, and dialogue.

"Our responsibility is not to come up with an organizational answer to all policy problems. Ours is to educate participants in health care. ... Our responsibility is to know the problem, know the visions of the future, and bring about discussion of ways to get there," says Durenberger, NIHP board chair and CEO. "Armed with the information from this process, the institute can provide a forum for dealing with difficult problems, a neutral forum where participants can find common ground, and hopefully solutions."

"Neutrality is the key to making this work. We aren't going to lay claim to the solutions; we're going to be the catalysts," says Katie White, administrative director of the NIHP. "We help develop the framework, the learning laboratory, and the resources."

## *At the Core: Professional-Patient Relationships*

The NIHP's current emphasis is its Core Program, which is exploring the health professional–patient relationship and the influence of third parties on this relationship. Focus groups showed that nearly every concern—from patient satisfaction in an encounter with a health professional, to length of time waiting for the physician and the technical competence of the physician, to health care costs and the introduction of managed care—was related to the professional-patient relationship.

"The very basis for health services design and delivery is to enhance the professional-patient relationship," says Durenberger.

"We are looking at everything we do through the eyes of this professional-patient relationship, which has become fractured," explains NIHP board member Brian Campion, M.D., University of St. Thomas, who is working on the Core Program with Bryan Dowd, Ph.D., University of Minnesota, Division of Health Services Research. "There has been a profound system change," says Campion. "Most care has [traditionally] been given in the doctor's office, but today we have experts, teams. What is the doctor's role today? Captain of the team? Member of the team? There has also been an economic change as managed care has taken over. Here the third party comes into play. There has been a profound disturbance in the professional-patient relationship. A lot of what is broken with the system connects to this relationship."


DANIEL MCLAUGHLIN

"One of the most important things I want to gain from this effort is to find out precisely what the problem is, from the patient's perspective, the physician's, employer's, and insurer's perspective. I am looking for a precise definition of the problem," Dowd says. "Second, we hope for a better understanding of how it arose and how to improve it."

NIHP expects the outcome of the first phase of the Core Program to be demonstration or pilot projects that can be tested and used as models.

## *A Natural Place to Start*

Improving health care is an ambiguous goal unless the problems are clearly defined. Although defining the

problems is no small order when it comes to health care, NIHP is unabashedly taking on the challenge by posing tough questions, confident they will lead to a clear understanding and a common focus that will equip health care stakeholders to form effective policy.

"The Upper Midwest has long been an innovator in health care. We have a strong work ethic and a value for sharing information, so it's a natural place to start," says Campion. "The idea is, if we can make it work here, it will have national implications."

The NIHP is expanding its board of directors to include members from around the nation and appears to be poised to expand its influence.

"With Dave Durenberger and Daniel McLaughlin in our leadership," says Dowd, "we clearly have what it takes to put the 'national' in NIHP." MM

*Jodi Ohlsen Read is a freelance writer in Carver, Minnesota.*

## *Health Policy Board*

**Former U.S. Sen. David F. Durenberger**
Chair of the board and CEO

**Brian Campion, M.D.**
Distinguished service professor, Center for Health and Medical Affairs, University of St. Thomas Graduate School of Business

**Bryan Dowd, Ph.D.**
Professor, Division of Health Services Research and Policy, School of Public Health, University of Minnesota

**Michael Finch, Ph.D.**
Health services researcher, Center for Health Care Policy and Evaluation, UnitedHealth Group

**Richard Frey, M.D.**
Program director, Center for Health and Medical Affairs, University of St. Thomas

**Kris Johnson**
Principal, Affinity Capital Management

**Katherine Johnston**
CFO, Academic Health Center, University of Minnesota

## NIHP Symposia

Over the past year, NIHP has attracted a wide variety of stakeholders—academicians, health care professionals, managed care representatives, government officials, patients, and others—to programs and events that target hot issues:

**Inaugural Symposium**
"Understanding the Forces of Change: The Managed Care Backlash in Perspective," Alain C. Enthoven, Ph.D., Marriner S. Eccles professor of public and private management, Graduate School of Business, Stanford University.

**Upper Midwest Forum on Medicare**
"Health Care in the New Millennium: Medical Technology and Health Care Delivery," John Wennberg, M.D., M.P.H., director, Center for the Evaluative Clinical Sciences at Dartmouth Medical School.

**Distinguished Author Series**
Robert A. Berenson, M.D., coauthor with Walter A. Zelman of "Managed Care Blues and How to Cure Them," Georgetown University Press, 1998.

Michael L. Millenson, author of "Demanding Medical Excellence: Doctors and Accountability in the Information Age," University of Chicago Press, 1997.

**Valedictory Address**
"The Transformation of the Largest Health Care System in the U.S. and Its Implications for the Future," Kenneth W. Kizer, M.D., M.P.H., former Under Secretary for Health, Department of Veterans Affairs and recently named president and CEO of The National Quality Forum.

**Planned Activities**
As a follow-up to the Upper Midwest Forum on Medicare, NIHP is planning an invitational research event to explore care patterns and practices in higher-cost regions of the country vs. the Upper Midwest.

Summaries of the events are available in print and via the Internet Web site, www.nihp.org.



Introducing the
# Thermal Brewing System
from US Office Products and MMBR

# "Coffee, anyone?"

**Enjoy fresh great-tasting coffee all day long. Here are a few reasons to consider adding the thermal brewing system and the US Office Products coffee service to your clinic:**

CALL 651/688-9384

TODAY FOR MORE

INFORMATION ON HOW TO

GET GREAT-TASTING

COFFEE IN YOUR CLINIC'S

BREAKROOM TOMORROW.

ASK FOR ANY OF

THESE MMA ACCOUNT

REPRESENTATIVES:

ERIC WICKAM,

MARIE CHRISTIANSON,

OR JIM CHRISTIANSON.

- ☑ Choose from an extensive line of excellent coffees ranging from as low a **4¢ per cup** to 12-13¢ per cup (for Starbucks). This offer provides MMBR Members special pricing lower than the already low pricing given any other US Office Products customers on coffee and related breakroom products.
- ☑ The patented thermal carafes provide hot fresh coffee for 12+ hours without using burners or additional heating.
  - No burnt-tasting coffee
  - No wasted, thrown-away coffee
  - No burners left on overnight
- ☑ Qualifying practices will receive a free coffee tasting and a free pack of Starbucks coffee.
- ☑ Great breakroom products when you need them; order your coffee over the phone or the internet and enjoy it in your breakroom tomorrow.

US Office Products℠

MMBR
Minnesota Medical Business Resources
Owned By MMA & HMS

# Leading the Way

*The MMA and the University of St. Thomas are teaching physicians how to be leaders.*

BY JENNIFER THISTLE

Internist Mary Jo Lewis, M.D., of Fargo, spends half her time on the job seeing patients and the other half overseeing the community care program for MeritCare Health System. Like a growing number of physicians, Lewis is playing dual roles as a practicing physician and an administrator. But the latter role she plays by "the seat of her pants," she says. "I was hired to be a physician leader, and although I had the interest and motivation, I did not have the skills or background to do my job."

Lewis is now gaining that background in the Physician Leadership College, a program offered jointly by the Minnesota Medical Association and the University of St. Thomas. "Leadership skills are like other skills, needing constant nurturing and updating," says Lewis, who enrolled in the 18-month program last spring along with 12 other doctors from the metro area, western and southern Minnesota, and Yankton, South Dakota.

The goal of the Leadership College is to help physicians gain the leadership skills they need to direct health care organizations. Participants are expected to make both a personal and a professional commitment to the program and be willing to "rethink" their current role in health care.

"There has been increasing awareness that physicians often lack the necessary training and leadership skills to effectively communicate with managers and other leaders," says Paul Sanders, M.D., CEO of the Minnesota Medical Association (MMA). "The University of St. Thomas (UST) had come to a similar realization, so we developed an intense physician training program with achievable expectations."

Brian Campion, M.D., distinguished service professor for the Center for Health and Medical Affairs at the UST Graduate School of Business, says the program is designed for physicians who are seasoned in their practice and who have already had leadership experience within their organizations.

"We need physicians who have a sincere desire to be in leadership, but this doesn't necessarily mean they need to leave their practices," says Campion, a cardiologist who practiced for 20

years and was CEO at Franciscan Skemp in La Crosse, Wisconsin, for nine years. "Hopefully, physicians will be able to fulfill dual roles."

The Leadership College has highlighted the importance of leadership for Mark Arnesen, M.D., medical director of Abbott Northwestern Hospital and Virginia Piper Cancer Institute labs. "The program forces me to recognize that leadership is a major priority for me—not just something I do in my spare time," says Arnesen, who spends about 60 percent of his time as a practicing pathologist and the rest as an administrator.

Lewis says her practice keeps her grounded and reinforces why she chose the profession. "Yet," she says, "the administrative experience gives me an opportunity to improve systems so we can work with our patients even better."

The program, which comprises 10 separate two- to five-day learning modules offered over 18 months, enrolls a maximum of 20 to 25 physicians at a time. Participants are carefully selected to ensure gender and practice diversity in the learning group. They commit to attending all modules and expect to spend an additional six to eight hours per week studying between sessions. An admissions committee interviews applicants, who may also meet with an industrial psychologist to identify their learning style and to determine what they can be expected to contribute to the group.

During the first week of the Leadership College, each physician participant selects a mentor for the duration of the program. "The program's mentors are leaders who have been through their own journeys," says Campion. "Part of learning how to be a leader is modeling yourself after other leaders."

The mentors, predominantly physicians, are chosen for their experience in the marketplace, leadership skills, and medical or administrative expertise. A contract between mentor and student outlines the parameters of their relationship.

Typically, the program's $18,000 tuition is paid jointly by the participants and their organizations; it may be paid over two fiscal years. Both Lewis and Arnesen receive tuition support from their employers. "Our hope is that the participants' organizations will offer support for their physicians going through the program," says Sanders. "It's a big commitment personally, professionally, and financially."

"The Leadership College allows physicians to learn about leadership in the health care arena," says Sanders, who sees patients part time at his family practice clinic in Cambridge while also working as MMA CEO. "In addition to being trained medically, physicians will be able to understand firsthand the necessary fundamentals to make them well-rounded leaders."

Arnesen says the Leadership College has helped him develop a "toolbox" of skills. By sharing ideas with colleagues in the program and mentors, he has broadened his outlook and become more self-aware. "The program," he says, "forces me to do a self-examination in regards to leadership in the current medical system."

For more information about the Physician Leadership College, contact Paul Sanders, M.D., Minnesota Medical Association, at 612/378-1875 or 800/342-5662, or Brian Campion, M.D., at the University of St. Thomas, Center for Health and Medical Affairs, at 651/962-4130 or 800/328-6819. MM

*Jennifer Thistle is MMA outreach field representative and a graduate student at the University of St. Thomas.*

## The Curriculum

The Physician Leadership College curriculum covers an array of topics, including:

**Ethics and leadership:** Emphasis on personal aspects of leadership.

**Leadership of change in the new health care organization:** Focus on the structure, development, and culture of new health care organizations and the physician leader's role.

**Finance:** An emphasis on the strategic aspects of management and the fundamentals of finance.

**Negotiation/communication:** Exploration of conflict resolution and negotiating strategies.

**Human resources/legal issues:** An emphasis on managing and motivating professionals and an overview of legal issues.

**Informatics:** Focus on using information in a health care setting.

**Quality:** Emphasis on understanding literature on quality methods, especially productivity, accountability, and outcomes measurement.

**Systems thinking:** How strategic thinking and planning improve health care systems.

**Visioning:** A discussion of potential health systems of the future and mechanisms for continued learning.

# A Vehicle Buying and Leasing Program With Special Benefits

- One stop shopping by phone or fax
- Buy or lease
- Any make or model
- Car, truck or sport utility vehicles
- New or used
- Save time
- Save money
- Eliminate shopping frustration

Remember, whether you purchase or lease, MMBR Motor Services and Creative Leasing, Inc. will help you get the most vehicle at the best price. We'll even help you sell your old auto.

Use your money wisely. For personal attention and lease or purchase information on any vehicle, call 612/623-2860, or toll-free 800/298-MMBR.

MMBR Motor Services is a service of Minnesota Medical Business Resources, a physician-owned corporation of your medical association.

**New Vehicle Leases****

| | Make/Model | MSRP | Your Price* | 24 Mo | 36 Mo | 48 Mo |
|---|---|---|---|---|---|---|
| **Cars** | 2000 Honda Accord LX, 4dr, AT | $19,755 | **$18,521** | $383 | $308 | $279 |
| | 2000 Toyota Camry LE, 4dr, AT | $20,843 | **$18,860** | $399 | $312 | $294 |
| | 2000 Subaru Legacy Outback Wagon | $23,990 | **$22,805** | $422 | $362 | $335 |
| **SUVs** | 2000 Chev Blazer LS, 4 dr, 4WD | $26,995 | **$24,795** | $422 | $345 | $394 |
| | 2000 Ford Explorer XLT, 4dr, 4WD | $29,675 | **$26,808** | $505 | $472 | $417 |
| | 2000 Dodge Durango SLT, 4 dr 4WD | $29,425 | **$27,136** | $515 | $449 | $399 |
| | 2000 Chev Tahoe LS, 4WD, 4dr | $35,184 | **$32,315** | $528 | $468 | $435 |
| | 2000 Chev Suburban LS, 4WD, 1/2ton | $37,387 | **$34,248** | $541 | $485 | $446 |
| | 2000 Ford Expedition XLT, 4WD, 4dr | $33,165 | **$29,047** | $550 | $480 | $430 |
| **Pickups** | 2000 Chev, 1/2ton Extcab, LS, 4WD | $27,781 | **$24,695** | $452 | $382 | $345 |
| | 2000 Dodge 1/2ton Quadcab, SLT, 4WD | $27,315 | **$23,941** | $433 | $374 | $337 |
| | 2000 Ford 1/2ton Supercab, XLT, 4WD | $27,500 | **$23,986** | $430 | $387 | $365 |

MANY REBATES & LOW FINANCING AVAILABLE ON QUALIFIED VEHICLES— ALL FIGURES QUOTED ARE BEFORE ANY REBATE REDUCTIONS

Effective date 3/3/2000

* Sale price before tax, license, and license fees.

** All lease payments listed above are monthly lease payments before tax on factory ordered leases. These lease payments are based on a $0.00 cap reduction and 15,000 miles/year. The only moneys needed to start the above leases are first payment, security deposit, and license for the first year.



**MMBR**

MOTOR SERVICES

MINNESOTA MEDICAL BUSINESS RESOURCES

OWNED BY MMA & HMS

## ANNOUNCEMENTS



### Privacy, Security, and Confidentiality of Medical Records 2000

Nonprofit Management Inc. will present a privacy and security workshop in Minneapolis on May 12.

To register or to learn more about the workshop, visit the Web site at http://www/nonprofitmgt.com or contact Josie Jordan at Josie@nonprofitmgt.com. MMA members should use the code "mnmed" on registration forms in order to receive a discounted fee of $350.

### Minority Meritorious Service Award

The MMA is seeking nominations for its 2000 Minority Meritorious Service Award.

The award is presented to a Minnesota doctor of medicine or osteopathy who has provided significant medical service to minority populations.

Send the nomination, a description of the service, and a letter of support to the MMA by May 1. For further information, call Wendy O'Donnell at 612/378-1875 or 800/342-5662.

# Legislation: What's In, What's Out after Third Deadline

The third legislative deadline on March 17 winnowed out more proposed legislation that had tenaciously hung on through other cuts. Several bills the MMA supports are still moving, and others may be brought back next year.

### Tobacco Money for Provider Tax

HF 2716/Bradley and SF 2565/Kiscaden are dead in bill form, but the MMA continues to push for some language to be included in the House and Senate omnibus tax bills. This legislation called for replacing provider tax revenues to the health care access fund with the state's tobacco settlement. A recent MMA alert asks members to contact legislators and voice support for this provision.

### Prompt Payment of Claims

This proposed legislation, HF 2643/Luther and SF 2767/Samuelson, drafted by the MMA in response to physician concerns about payment delays, was passed by the Senate and is awaiting action on the House floor.

If passed, it would require all health plans and third-party administrators to pay clean claims within 30 days or face a 1.5 percent per month interest penalty.

### Expert Witness

HF 2589/S. Smith and SF 3039/Foley, which would have significantly shifted the balance in favor of plaintiffs suing physicians, is dead. The MMA strongly opposed this legislation.

### Hatch's Patient Protection Bill

Attorney General Mike Hatch's Patient Protection Bill, which would have made health plans more accountable for treatment decisions, is considered dead for this legislative session. Provisions of SF 953/Samuelson and HF1034/Adams, which the MMA supports, may still be carried in other bills.

### Other Patient Protections

The MMA has taken no position on HF 3610/Goodno and SF 3156/Berglin, which call for some consumer protections from health plan decisions. The MMA does support language in the bills that would require insurers to use standard paper remittance forms. This legislation is awaiting action on both the House and Senate floors.

### Alternative/Complementary Medicine

The MMA strongly opposed the original versions of SF 689/Ring and HF 537/Boudreau, which dealt with the practice of complementary and alternative medicine. The current, amended language, which allows more regulation of these practices and would establish a Department of Health office to investigate complaints, is considered an improvement, but the MMA does not support these bills. This legislation has passed the Senate, and is awaiting action on the House floor.

### Contract Stacking

The MMA supports HF 3310/Abeler and SF 3055/Kiscaden, which would limit health plans' ability to engage in "contract stacking." This legislation has passed the Senate and is waiting to be heard on the House floor.

# VIEWPOINT

***Robert K. Meiches, M.D.***
*Chair, MMA Board of Trustees*



## MMA Needs Member Participation to Succeed

I was pleased and honored to be selected as chair of the Minnesota Medical Association Board of Trustees in January.

As you may know, the chair of the board of trustees is usually elected during the MMA Annual Meeting in the fall. This year, however, after serving more than two years as board chair, Paul Matson, M.D., was elected an alternate delegate to the AMA delegation, so he moved out of his role as board chair. Dr. Matson has been an extraordinary leader for the MMA. Although the MMA will miss his commitment and insights as board chair, Dr. Matson will continue to provide leadership to organized medicine as an AMA alternate delegate. Paul, thank you very much.

As we look to the future, there are at least three crucial issues the MMA must address in order to continue to grow, thrive, and meet the needs of physicians throughout the state.

The first issue is advocacy—strong, consistent advocacy on behalf of physicians and their patients. Whether in the public policy, legislative, or other arena, the primary function of the medical association must be to advocate for the health of the community and for the physician's leadership role in achieving our health goals. We will continue to focus the debate on the patient's welfare by asking: Is it good medicine?

Legislative advocacy continues to be a high priority. This session is the second, "short" half of the biennium when only bonding and emergency bills are usually considered. Nonetheless, the MMA has aggressively pursued every opportunity to repeal the provider tax and has been active in other important issues as well.

Next session will be even more important for physicians and their patients. In 2001, the governor is expected to propose to the Legislature an overall plan that will include action on health care issues. The MMA Board of Trustees and its subcommittees have already begun to identify the key issues that the MMA must address at the MMA Annual Meeting in September so that we will be well prepared for the 2001 session.

The second crucial issue is strengthening our membership. Every physician in this state has the ability to contribute to our future. We need all physicians to be active in the MMA and to provide leadership in the areas that interest them. I believe physicians want to participate in their medical association. Making it easier for them to do so will continue to be a major goal of the MMA.

Finally, we must collaborate more effectively within organized medicine. The MMA needs to work hand-in-hand with the component medical societies, specialty societies, and the AMA. We have a limited amount of human and economic resources. Unless we work together in an efficient way, we will not be able to achieve our goals. Collaboration among the MMA, the AMA, and specialty and component societies will make us all more effective.

It is my goal to help the MMA move forward in an increasingly complex health care environment. I call on each of you to contribute in your own way. Let us hear from you. Make a commitment to spend some time expressing your thoughts by phone, letter, e-mail, or in a committee meeting. We need each of you in order to succeed.

# Physicians Explore Internet Technology at AMA/Intel Road Show

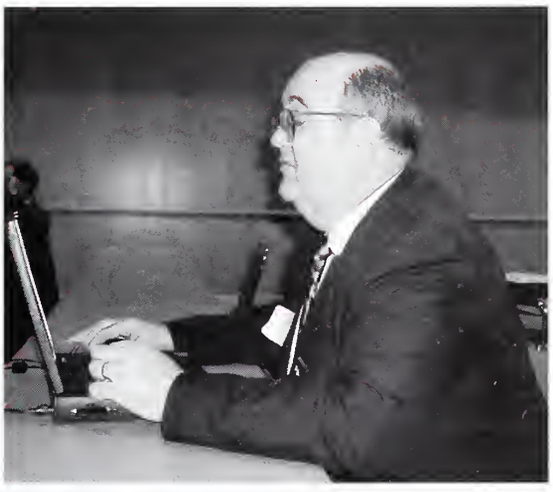
More than 100 physicians attended the AMA/Intel Internet Road Show on March 9 at RiverCentre in St. Paul.

Participants in the all-day program, sponsored by the Minnesota Medical Association and Minnesota Medical Insurance Corporation, used laptop computers to develop basic Internet skills, learn about the latest Internet technologies, and explore Web sites that can make a difference in doctor-patient relations and patient care. Leaders in technology and medicine gave presentations on how the Internet is reframing the patient-physician relationship, the health care industry, and access to health information.

Deb Cabalo of Intel Corporation discussed emerging Internet trends and barriers to physicians' use of the Internet. "Doctors are getting pressure from empowered consumers, HMOs, and pharmaceutical companies to use information technology for a variety of different reasons," said Cabalo.

Physicians and the health care industry are just beginning to find and accept their places in Internet health, she said. "Physicians who take pertinent action with the Internet can strengthen relationships with patients and guide them to quality health resources. This is a high-tech plus high-touch approach to health care," said Cabalo.

Bob Sikorski, M.D., Ph.D., and E. Houston Warren, M.D., Ph.D., led hands-on discovery sessions on Web sites and utilities for physicians, patient use of the Internet, and ways the Internet can increase the efficiency of physicians' practices.



*Paul Sanders, M.D., MMA CEO, participates in a hands-on discovery session at the AMA/Intel Internet Road Show.*

"As practicing physicians, you have no idea what the reality of medicine will be in five years," said Sikorski. "With Internet technology, we look at what is current, what is probable, and what is on the edge of fantasy," he said.

It is a probable reality that physicians will soon be able to conduct daily health care transactions, such as initiating prescriptions, managing prescription benefits, and viewing drug interactions, in a secure online environment, according to Sikorski. "This will allow physicians to spend more time doing what they do best—patient care," he said.

Physicians can also use the Internet in ways that enhance their practice, according to Warren. Having access to a Web site can make it easier for patients to feel connected with busy physicians, especially if they can schedule appointments, request prescription refills, and access health information, he said.

Paul Sanders, M.D., MMA CEO, who attended the road show, said he believes the training offered ideas that physicians can use to make their practices both more efficient and more patient friendly. "As physicians, we should be open to technology that makes more time available for patients and that could improve the way we practice medicine," he said.

For those who missed the AMA/Intel Internet Road Show, the speakers' PowerPoint presentations are available on the AMA Web site at www.ama-assn.org/about/roadshow/index.htm.

## Be a Mentor to Minority Youth

A pilot mentoring program for minority sixth-graders is scheduled to begin this year in the Twin Cities area.

Physician teams will mentor these students for one hour per week during the school year. There will also be periodic meetings with other mentors.

Three to five physician volunteers are needed by May in order to implement the program in September.

If you are interested in participating or would like more information, please call Wendy O'Donnell at 612/378-1875 or 800/342-5662.

# David McCollum, M.D., Discusses Destructive Power of Sexual Abuse

David McCollum, M.D., spoke to University of Minnesota medical students on March 7 about health consequences of childhood sexual abuse. He posed the question: "Can sex kill?" to the audience.

He believes it can.

"Sexual abuse kills the mind, the spirit, and the victim's sense of what is good and decent," said McCollum.

As an emergency room physician in Waconia, he told students he sees daily evidence of the medical toll sexual abuse takes on victims. "Sexual abuse is the single most devastating, most costly, and most consequential form of abuse, yet it is one of the least talked about," he said.

People who have experienced abuse or violence access the health care system 2.5 times more frequently than others, according to McCollum. Personal violence may ultimately lead to up to 50 percent of all health care expenditures, he said.

The Federal Bureau of Investigation estimates that one of every three to four females and one of every six to seven males will be sexually abused before reaching 17. "We are seeing patients every day who have experienced sexual abuse that will affect them in adulthood," said McCollum.

The destructive power of sexual abuse exceeds that of other types of abuse for several reasons, according to McCollum. "Sex draws our attention and rarely has a neutral effect. When we recognize the power of sex, we can begin to understand the powerful consequences of sex gone wrong," he said.

Children who experience physical abuse without a sexual component see an understandable pattern, such as certain behavior resulting in harsh punishment. They are also somewhat able to predict when abusive treatment will occur—perhaps when a parent is angry. Sexually abused children can make no sense of the abuse, which is foreign behavior that occurs with few or no precursors. Very young children generally have the worst outcomes, he said.

> "Sexual abuse is the single most devastating, most costly, and most consequential form of abuse, yet it is one of the least talked about."
>
> *David McCollum., M.D.*

While working in an emergency room in Southern California, McCollum first began seeing patterns that made him suspicious. Medical school had not prepared him to talk to patients about sexual abuse, nor had it taught him about the far-reaching effects it has on victims. Through trial and error, he learned how and when to ask questions about patients' histories. When he inquired, many people, frustrated by their illnesses and recurring symptoms, shared painful childhood sexual abuse experiences—and perhaps found some relief in talking about them, said McCollum.

Through his professional experience, discussion with other professionals, and research, McCollum has become aware of many medical conditions that often, though not always, coincide with sexual abuse in patients' past. Some conditions he believes may correlate with sexual abuse include chronic headaches, loss of consciousness, chronic fatigue syndrome, fibromyalgia, choking sensations, palpitations, hyperventilation, chronic abdominal pain, irritable bowel disorders, chronic pelvic pain, PMS, environmental allergies, multiple drug allergies, sexual disorders or dysfunction, Munchausen's syndrome, and conversion reaction. Possible psychiatric consequences include depression, suicide, multiple personality disorder, self mutilation, obsessive-compulsive disorders, panic attacks, post-traumatic stress syndrome, anxiety disorders, and eating disorders, including obesity.

When trauma from sexual abuse is a factor in illness or other medical conditions, counseling generally doesn't lead to full recovery from physical symptoms, said McCollum. Patients still benefit from better understanding the role past abuse may play in their illness, he said.

He encouraged medical students to take risks and explore patients' histories when they believe it could be helpful. "Physicians who sense that a patient may have been sexually abused and ask the right questions have the opportunity to help relieve victims' pain and to change lives," said McCollum.

He told the students about one emergency room patient he examined who had seen many doctors for her stomach pain but had never been successfully treated. When he asked her about her history, she answered that she had been sexually abused as a child but had never told anyone. The patient, who eventually sought counseling, was later asked why she told McCollum, but not other doctors, about the abuse. "Because he asked," she said.

*David McCollum, M.D., is the Minnesota Medical Association representative to the Health Care Coalition on Violence and a member of the planning committee for this lecture series at the University of Minnesota.*

# NEWS DIGEST

*People and places making medical news*



## People & Places

**Eric Meininger, M.D.,** won the **Fairview Cares Award 2000** for his work with troubled and runaway youth. Meininger, a first-year fellow in adolescent medicine and a student in the public health master's degree program at the **University of Minnesota,** staffs a free clinic one day a week run by **Project OffStreets** and volunteers with other organizations aiding gay and lesbian youth. Meininger has designated the $10,000 award for the **Minneapolis Youth Diversion Program,** which runs OffStreets. The annual community service recognition is open to employees, volunteers, affiliated medical staff, and others associated with Fairview.

**Paul Druck, M.D.,** chief of general surgery at the **Minneapolis VA Medical Center,** has received a three-year appointment as Cancer Liaison Physician for the VA's Hospital Cancer Program. Druck joins a national network of more than 1,800 volunteers who support activities of the **Commission on Cancer** of the **American College of Surgeons.**

The **National Multiple Sclerosis Society** has awarded the **Mayo Clinic** nearly $3 million in research grants for four projects. The award includes the largest single grant the organization has ever given—$1.85 million to **Claudia Lucchinetti, M.D.,** for research into how different subtypes of the disease respond to treatment.

The **Mayo Clinic's Ronnier Aviles, M.D.,** internal medicine, **Pramod Kelkar, M.D.,** allergy and immunology, and **Melissa Merideth, M.D.,** obstetrics and gynecology, in December received **American Medical Association Foundation Leadership** awards at the AMA Interim Meeting in San Diego. Award winners also attended the **AMA National Leadership Development Conference** in Miami Beach, Florida. Also attending the March conference were **MMA CEO Paul Sanders, M.D., MMA President John Van Etta, M.D., MMA Board Chair Robert Meiches, M.D.,** and **MMA President-elect Blanton Bessinger, M.D.**

**David V. Taylor, Albert E. Eggert,** and **Mary Kay O'Neill, M.D.,** have been elected to the board of directors of **HealthEast Care System.** Taylor is dean of the General College at the **University of Minnesota.** Eggert is vice president and general manager of **3M's Health Care Services Division.** O'Neill is section head of physical medicine and rehabilitation at **Virginia Mason Medical Center** in Seattle.

**Gillette Children's Specialty Healthcare** has named **James Bradshaw** of Stillwater, and **Beverley Oliver Hawkins** and **Robert Thacker** of St. Paul to its board of directors. Bradshaw is founder, owner, president, and CEO of the funeral home firm **The Bradshaw Group, Inc.;** Hawkins is CEO of **Model Cities of St. Paul, Inc.;** and Thacker is president and CEO of the advertising firm **BBDO Minneapolis.**

The **American Medical Group Association** has awarded **Park Nicollet Clinic** and **Methodist Hospital** of St. Louis Park the **2000 Acclaim Award** for the groups' Care Initiatives Program. The $60,000 award will be used to continue the Care Initiative Program, a quality-improvement project that involves more than 25 groups at the hospital and clinic.

The **Minnesota Department of Trade and Economic Development** has received a $70,000 federal grant to assist in the development of a **Disaster Preparedness Internet Site** for the state. The Internet site will have the capability to involve citizens, businesses, and the nonprofit sector.

The **Minnesota Medical Foundation endowment,** which funds, research and education programs at the **University of Minnesota's Medical Schools** and **School of Public Health,** grew to $229 million as of June 30, 1999—more than double the amount in 1996—$109 million. The foundation's three-year net investment return was 23.6 percent, while the national average was 17.5 percent, placing it 6th nationally among 424 college and university endowments.



# Socioeconomics

### State Fines Medica

The **Minnesota Department of Health** fined **Medica** $25,000 for failing to adequately notify patients when it dropped the **Doctors Clinic of Minneapolis** from its physician network last September. Medica dropped the clinic, at which several of the Twin Cities' leading AIDS physicians practice, as a cost-saving measure and failed to formally inform patients until December. The move affected 183 patients insured by Medica's Medicare HMO. State patient protection laws require that HMOs give patients with chronic illnesses extra time to get a new doctor and that HMOs have doctors with expertise in diseases such as AIDS. Medica has since restored access for the patients at the clinic. The Doctors Clinic is owned by the nonprofit Allina Health System, which also owns Medica.

*First Call Physicians, Inc.*
*A Locum Tenens Service*
*500 Eighth Ave. S.*
*Buffalo, MN 55313*

**Clinics/Hospital** | **Physicians**

*Locums Coverage*
=
*Revenue*

- Patients falling through the gaps?
- Physician burnout or illness?
- Shortage of physicians?

- Earn more with less time.
- No administrative headaches.
- Malpractice premium paid.

*Experience, Service, Honesty*
*Call (metro) 682-3852*
*(toll free) 888-682-3852*

*(You'll be glad you did!)*

### Streamlined Form Designed to Aid Uninsured

A new, shortened application form makes it easier for Minnesotans to apply for the state's health care programs—Medical Assistance, General Assistance Medical Care, MinnesotaCare, and the Senior Drug Program. The form, shortened from 20 to four pages, is one of several **Minnesota Department of Human Services** efforts to reach the uninsured. Although Minnesota has the third-lowest uninsured rate in the country, about 249,000 Minnesotans do not have health insurance.

### Appeals Court Decision Favors Blue Cross

The **Minnesota Court of Appeals** has struck down a **Minnesota Commerce Department** ruling that **Blue Cross and Blue Shield of Minnesota** return proceeds from the tobacco settlement to policyholders. Blue Cross plans to invest its settlement dollars in tobacco-prevention programs. The company settled its lawsuit with the tobacco companies on May 8, 1998, for $469 million payable through 2003.

### Commerce Department to Oversee HMO Finances

The state **Commerce Department** will take over financial regulation of HMOs this year, while the **Health Department** will remain responsible for HMO quality, under a new agreement between the departments. The Health Department, which has long regulated the HMOs, will pay $369,000 to the Commerce Department to do financial examinations during a 15-month trial. HMO leaders have criticized the change, charging that it creates too many regulators. State officials defending the deal note that the Commerce Department, which reviews the financial operations of more than 600 insurance companies, already has the capability and experience.

### Twin Cities Distributing Gun Locks

**Minneapolis** and **St. Paul** are giving away 10,000 gun safety kits that include gun locks. **Project HomeSafe**, a Seattle-based gun safety program provided the kits, which were purchased for $50,000 by the gun manufacturer's group, the **National Shooting Sports Foundation.** Nearly 100 U.S. cities or counties are expected to participate in the giveaway program by the end of the year. Gun owners may get a safety kit by calling 651/292-3662 in St. Paul or 612/673-2100 in Minneapolis.

### Rural Hospitals Get Capital Improvement Grant

Twenty-one small, rural Minnesota hospitals will receive a total of $2.5 million from the **Rural Hospital Capital Improvement Grant Program** for remodeling or replacing outdated facilities and equipment. The program, administered by the state **Office of Rural Health and Primary Care**, is designed to aid hospitals with 50 or fewer beds. ■



# Research & Innovations

### Minneapolis Blood Center to Use New HIV Screen

Memorial Blood Centers of Minnesota is one of 16 laboratories nationwide selected by the FDA to screen for human immunodeficiency virus using **nucleic amplification testing.** NAT narrows the time between infection and detection of HIV from 22 to 11 days, which should further protect the blood supply from HIV infection. In Minnesota, the risk of contracting HIV through a blood transfusion is currently one in 1 million. The MBCsM will test locally collected blood samples as well as blood collected from 11 blood centers nationwideas part of an FDA investigational study.

The blood center has been using NAT since last April to test donated blood for Hepatitis C.

### Study Debunks Bone Marrow Transplant for Breast Cancer

A study of 184 women with breast cancer that had spread to other parts of the body showed that bone marrow transplants combined with chemotherapy are no more effective than standard chemotherapy. The study, co-authored by **Mayo Clinic** oncologist **James Ingle, M.D.,** showed that only 32 percent of women receiving bone marrow transplants survived after three years, compared with 38 percent who received standard chemotherapy. The study, made available online in advance of publication by the *New England Journal of Medicine,* raises questions about Minnesota's mandate for insurance coverage of bone marrow transplants.

### Antinausea Drug Helps Bulimics

An antinausea drug used by cancer patients reduces bingeing and vomiting in bulimics, **University of Minnesota** researchers reported in the March 3 *Lancet.* Fourteen severely bulimic women were given ondansetron for four weeks; 12 were given placebos. By the fourth week, the bingeing and vomiting cycles in the test group dropped from an average of 12 binges and eight vomiting episodes per week to six binges and five vomiting episodes, while the average number of binges stayed at 13 for the placebo group and the vomiting episodes declined from four to two. Psychiatrists **Boyd Hartman, M.D.,** and **Patricia Faris, M.D.,** who co-authored the study, say the drug soothes the stomach's over-stimulated vagus nerve in bulimic patients.

### Study Finds Soy Not the Cure for Hot Flashes

Soy is not an antidote for hot flashes, according to a **Mayo Clinic** study published in the *Journal of Clinical Oncology.* The study of 177 recovering breast cancer patients found virtually no difference in reported numbers of hot flashes between women taking 150 milligrams of soy per day and those who took placebos. Soy does reduce serum cholesterol, may alleviate osteoporosis, and is a low-fat protein.

### New Valve Improves CPR Pump

**Keith Lurie, M.D.,** associate professor of medicine and co-director of the cardiac arrhythmia center at the **University of Minnesota,** has invented a valve that improves the performance of his **CardioPump,** a plunger-like device used in cardiopulmonary resuscitation in Europe. The valve attaches to a breathing tube inserted in the patient's airway, creating suction in the chest that increases circulation during CPR. A study conducted in Paris and reported in the journal *Circulation* shows that the valve helped patients maintain close-to-normal blood pressure during resuscitation. Neither the CardioPump nor the valve has been approved for use in the United States.

### Heart Attack Risk Reduced with Aggressive Treatment

Treating all risk factors for heart disease is significantly more effective than treating only some, according to a **Minneapolis Heart Institute Foundation** study. People 55 and younger can reduce their chances of dying by nearly 60 percent if they watch their cholesterol, triglycerides, diet, blood pressure, and homocysteine levels, and also exercise, stop smoking, and take Vitamin E. Researchers, led by **Kevin Graham, M.D.,** director of preventive cardiology at the institute, followed 2,060 patients hospitalized at **Abbott Northwestern Hospital** in Minneapolis with symptomatic coronary artery disease. After initial treatment, 953 patients returned to Abbott to participate in an aggressive risk-reduction program. Four years later, 58 patients (5.28 percent) in the untreated group had died, compared with 23 patients (2.41 percent) in the treated group.

# Rates, Trends & Data



### Mixed Report on Welfare of Hennepin County Youth

About 90 percent of Hennepin County youth feel safe at school; most feel that they can talk to a parent about their problems; and rates of smoking and sexual activity are down from 1992. That's the good news in the recent study "Children and Families in Hennepin County: A Closer Look," produced by the county, the United Way of Minneapolis Area, and the Alliance for Families and Children in Hennepin County. The study shows disturbing trends, as well, describing areas with high suicide rates among high school–age girls, pockets of violence, and increasing drinking and driving rates. The report is available online at www.uwmsp.org.

### Report on Kids Reveals Signs for Hope, Concern

Rates of violent deaths, homicides, suicides, and accidents among Minnesota youth are down, according to the fifth annual Kids Count report, as are school dropout, child poverty, arrest, and teen birth rates. But the collection of child-welfare data from the Children's Defense Fund of Minnesota showed no improvment in the number of children who are abused and neglected, are in out-of-home placements, have low birth weights, and receive food stamps or subsidized school lunches. The report also noted a new cause for concern: There is one school transfer for every seven students. Other studies have linked students who transfer between schools to lower standardized test scores, depression, delinquency, and other problems.

*Information compiled from the* St. Paul Pioneer Press, *the Minneapolis* Star Tribune, *the Associated Press, and news releases.*

**Physician Employment Opportunities Available at WINONA CLINIC, LTD.**

**Internal Medicine**
*with concentrated area of study in Cardiology, Gastroenterology, or Neurology*
(position available in 2001)

**Orthopedic Surgery**
(position currently available)

**Pediatrics**
(position available in 2001)

Our staff of 30+ medical providers is looking forward to welcoming you, as you begin your practice at this thriving, independent, physician-owned, multi-specialty clinic, located in a family-oriented community situated along the Mississippi River in the beautiful bluff country of southeastern MN.

*For additional information, contact:*
**Administrator**
**Winona Clinic, Ltd.**
**420 East Sarnia Street**
**Winona, MN 55887**
**Phone: 507-457-7722**
**Fax: 507-457-7672**

Clear blue skies, fresh air, wide-open spaces and clean lakes await you. MeritCare Medical Group is seeking talented, energetic physicians to join thriving, diverse practices.

MeritCare Health System is the premiere Health System between Minneapolis and Seattle, MeritCare Medical Group is a 350-physician multi-specialty group with a strong primary care base and MeritCare Hospital is a 380-bed tertiary/trauma hospital. Fargo-Moorhead is a tri-college community of 160,000 with excellent public and parochial schools and a park department that provides activities for all age groups year round.

We are seeking BC/BE physicians in the following specialties:

**Adult Psychiatry**
**Anesthesiology**
**Child/Adolescent Psychiatry**
**Dermatology**
**EatingDisorders Clinician** (PhD, PsyD or Masters prepared)
**Family Practice** (Fargo, ND; E. Grand Forks, MN; Jamestown, ND)
**General Surgery** (Valley City, ND)
**Hematology/Oncology**
**Interventional Radiology**
**Invasive, non-interventional Cardiology**
**Neonatology**
**Neurology**
**Neurosurgery**
**Obstetrics/Gynecology** (Detroit Lakes, MN)
**Optometry** (Mayville, ND)
**Orthopaedics**
**Otolaryngology**
**Pediatrics**
**Reproductive Endocrinology**
**Rheumatology**

Contact Kathleen Toft, Physician Recruiter, 737 Broadway, Fargo, ND 58123 or call 1-800-437-4010 or fax vitae to 701-234-2316. My e-mail address is kathetoft@meritcare.com or check our web site at www.meritcare.com

**MeritCare Medical Group**
EOE/AA Employer
(not a J-1 waiver opportunity)

# Regional Differences in Cardiovascular Mortality in Minnesota

John Morrison, Vincent Garry, M.D., Mary E. Harkins, M.P.H., Melissa Cohen, and Judy Palermo

ABSTRACT

**Cardiovascular disease is the leading cause of death in the United States. Initial results from our health survey in the Red River Valley of Minnesota suggested elevated cardiovascular mortality in men and women in younger age groups there compared with the rest of the state. Similarly, earlier published longitudinal studies of cardiovascular mortality in Minnesota revealed increased cardiovascular mortality in counties west of a diagonal line drawn through the tip of the arrowhead region (northeast Minnesota) to the southwest corner of the state.**

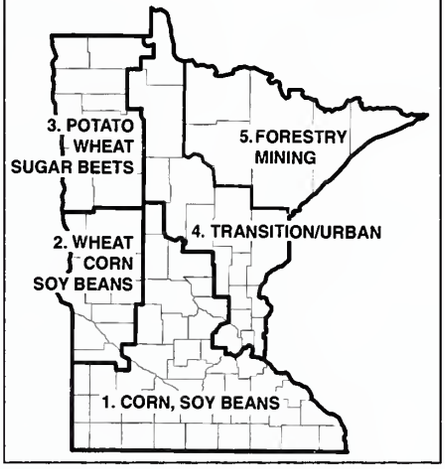
**In this study we examined cardiovascular mortality by geographic region with respect to economic factors, residence patterns, and ethnic group. Since these regions vary in geology and major land use, environmental factors were considered as well.**

**Our present data show a significant elevation in cardiovascular mortality from 1987–1997 in men and women aged 25–59 in northwest and northeast Minnesota counties compared with central-metro counties. In contrast, south-central Minnesota shows a rate of cardiovascular mortality for that age group similar to that seen in the central-metro region. The increase in cardiovascular deaths from myocardial infarct in the younger groups in the more rural, less affluent areas of northwest Minnesota is nearly two times higher than in the central-metro counties. Genetic factors may play a role in the increased mortality recorded for northeast Minnesota. Environmental contaminants such as pesticides are additional considerations.**

**Finally, our data suggest the need to address long-standing regional cardiovascular mortality differences and rural health care access in Minnesota.**

Despite a downward trend in mortality from cardiovascular disease during the past two decades, this disease remains the leading cause of death in the United States.[1-3] The observed decrease in mortality has been associated with reduced risk factors and improved medical care.[4-7] However, regional differences in coronary heart disease (CHD) mortality persist and are not easily explained by differences in known risk factors such as diet and smoking habits.[8-10] In Minnesota, regional differences in CHD mortality were first demonstrated in a longitudinal mortality study (1960–1980) by the Minnesota Heart Survey.[11] The report showed that cardiovascular mortality and trends in mortality over the two decades decreased geographically along a diagonal line running from northeast to southwest Minnesota.

Figure
*Minnesota Land Use Regions*




More recently, in studies on the potential relationship of pesticide application practices to birth defects[12] and cancer,[13] we found a significantly higher risk of birth defects and thyroid cancer mortality in the Red River Valley of northwestern Minnesota than in the nonfarming (forested/urban) region of metro and northeastern Minnesota. Furthermore, in an ongoing cross-sectional health study of randomly selected pesticide appliers (N=1,072) and their spouses (N=802) who reside in the Red River Valley, we have identified 17 cardiovascular deaths. The average age at death was 59 (range 34–78), raising the possibility that the incidence of early cardiovascular death in this region may be unusually high.

These data, coupled with our earlier observations of a lower cardiovascular mortality rate in pesticide appliers from southern Minnesota[14] and the data from the 1984 Minnesota Heart Survey report,[11] prompted us to examine the apparent elevation in early cardiovascular deaths in the Red River Valley. In this report, we consider demographic, genetic, and environmental factors that might explain the regional differences in cardiovascular mortality recorded from 1987–1997 in Minnesota.

## *Methods and Materials*

Deaths from cardiovascular disease were defined as those designated by codes 390–398, 400, 402, 410–429 of the International Classification of Diseases, 9th revision, Clinical Modification (ICD-9-CM). Cardiovascular disease mortality data were obtained for all Minnesota residents for the years 1987–1997 from the Minnesota Department of Health. Decedents were grouped according to county of residence, gender, and age. Population figures for Minnesota counties came from U.S. census data for 1990 and the Minnesota Department of Health. Demographic information for residents of Minnesota counties came from the 1990 United States Bureau of the Census data.

Table 1

*Cardiovascular disease mortality age standardized rate ratios (SRR) with 95% confidence intervals (CI), with region 4 as the referent region, during 1987–1997 and based on the 1990 population*

| Region | Men age 25–59 | | Women age 25–59 | | Men age 60–85+ | | Women age 60–85+ | |
|---|---|---|---|---|---|---|---|---|
| | SRR | 95% CI | SRR | 95% CI | SRR | 95% CI | SRR | 95% CI |
| 1 South-central | 0.9 | 0.86-0.95 | 0.82 | 0.74-0.90 | 1.03 | 1.01-1.05 | 1.08 | 1.06-1.10 |
| 2 West | 1.04 | 0.93-1.16 | 0.99 | 0.80-1.22 | 1.08 | 1.05-1.12 | 1.09 | 1.06-1.13 |
| 3 Northwest | 1.17 | 1.05-1.30 | 1.12 | 0.91-1.36 | 1.1 | 1.06-1.14 | 1.06 | 1.02-1.10 |
| 4 Central-metro | 1 | Referent | 1 | Referent | 1 | Referent | 1 | Referent |
| 5 Northeast | 1.2 | 1.10-1.31 | 1.11 | 0.95-1.31 | 1.21 | 1.17-1.25 | 1.28 | 1.24-1.32 |

As in our previous studies, we divided Minnesota counties into regions characterized by principal land use and geology (see the figure, page 41).[15-16] The first three regions are agricultural and can be divided by crop production: Region 1 (south and southwest) produces corn and soybeans; region 2 (west) grows wheat, corn, and soybeans; region 3 (northwest) predominantly yields wheat, potatoes, and sugar beets.[17] Region 1 is also the major beef- and hog-producing area of Minnesota.[18] Region 4 (central-metro) forms a transition zone between the forested and agricultural regions and contains the population centers of Minneapolis and St. Paul. Region 5 (northeast) is primarily forested and an important source of timber, wood pulp, and mining products. These regional differences provide an opportunity to evaluate possible environmental effects related to land use (agricultural practices, forestry products, and mining) and geologic features. Similarly, demographic factors that may have an effect on cardiovascular disease mortality, including urbanization, income, and ethnicity, were compared regionally.

To evaluate cardiovascular disease mortality with respect to age and gender, we divided decedents of each region into four groups: (1) men 25–59, (2) men 60–85+, (3) women 25–59, (4) women 60–85+. Ages 25–59 represent early cardiovascular death. Age standardized rate ratios (SRR) with 95% confidence intervals were used to calculate cardiovascular disease mortality for each group. We designated region 4 as the referent region, since it primarily represents urban residents and the transition to nonagricultural land use.

Cardiovascular deaths during the 11-year period were also evaluated by ICD-9-CM code as designated on the death certificate. Relative incidences for underlying causes of cardiovascular death were then compared by region. Myocardial infarct (ICD-9-410) and atherosclerosis (ICD-9-414) accounted for the majority of cardiovascular disease deaths and varied considerably in incidence by region. Chi-square analysis was used to estimate the statistical significance of this regional variation. Odds ratios with 95% confidence intervals were generated to estimate the relative risk of myocardial infarct and atherosclerosis as a cause of death for men and women in both age groups.

## Results

Table 1 lists by geographic region the age standardized rate ratios for cardiovascular disease mortality in the years 1987–1997. Region 4 (central-metro) was the referent region for these comparisons. Region 3 (northwest) and region 5 (northeast) show significantly elevated cardiovascular mortality among men aged 25–59. Similar mortality increases are noted for women aged 25–59 in these regions, but because of fewer deaths among women and the sparseness of the population, the difference in rates is not statistically significant. Regions 3 and 5 again show increased CHD mortality in the older groups (60–85+) for both men and women, with region 5 showing the highest CHD mortality for these groups.

Analysis of the mortality data by major cardiovascular disease category (Tables 2A and 2B) shows that the risk of death from myocardial infarction for men and women aged 25–59 residing in regions 2 (west) and 3 (northwest) is two times greater than that for persons residing in the referent region (region 4). A higher rate of death from myocardial infarction also occurred in the older groups for both men and women in regions 2 and 3. Region 5 shows approximately a 150% increase in myocardial infarct in the younger groups. There is a nearly reciprocal decrease in the relative risk for cardiovascular death from atherosclerosis for the younger groups in regions 1 through 3 compared with the referent region. Nonsignificant increases in atherosclerotic deaths are noted in region 5.

Table 3 shows some demographic factors that may influence CHD mortality in each region studied. Region 4, the referent region, is the most densely populated and the most urban. Accordingly, it has the highest median income and the highest percentage of minorities in the state. Region 1 also has a relatively high median income. Overall, income and place of residence—urban vs. rural—appear to be important demographic factors in regions 2 and 3, though only region 3 shows higher cardiovascular disease mortality in the younger groups. Region 5, which also

Table 2A

*Relative risk and 95% confidence intervals (CI) for death due to myocardial infarct (ICD 9-410) with region 4 as the referent region*

| Region | Men age 25–59 | | Women age 25–59 | | Men age 60+ | | Women age 60+ | |
|---|---|---|---|---|---|---|---|---|
| | RR | 95% CI | RR | 95% CI | RR | 95% CI | RR | 95% CI |
| 1 South-central | 1.16 | 1.07-1.26 | 1.14 | 0.97-1.35 | 1.46 | 1.41-1.51 | 1.37 | 1.32-1.42 |
| 2 West | 2.1 | 1.81-2.45 | 2.01 | 1.47-2.76 | 1.79 | 1.69-1.89 | 1.59 | 1.49-1.70 |
| 3 Northwest | 2.21 | 1.99-2.55 | 2.4 | 1.81-3.17 | 1.8 | 1.69-1.91 | 1.46 | 1.35-1.57 |
| 4 Central-metro | 1 | Referent | 1 | Referent | 1 | Referent | 1 | Referent |
| 5 Northeast | 1.6 | 1.40-1.84 | 1.5 | 1.12-2.00 | 1.23 | 1.16-1.30 | 1.18 | 1.10-1.25 |

Table 2B

*Relative risk and 95% confidence intervals (CI) for death due to atherosclerosis (ICD 9-414) with region 4 as the referent region*

| Region | Men age 25–59 | | Women age 25–59 | | Men age 60+ | | Women age 60+ | |
|---|---|---|---|---|---|---|---|---|
| | RR | 95% CI | RR | 95% CI | RR | 95% CI | RR | 95% CI |
| 1 South-central | 0.78 | 0.72-0.84 | 0.66 | 0.56-0.78 | 1.01 | 0.98-1.04 | 1.06 | 1.02-1.09 |
| 2 West | 0.73 | 0.58-0.91 | 0.81 | 0.53-1.23 | 1.04 | 0.98-1.11 | 1 | 0.94-1.07 |
| 3 Northwest | 0.61 | 0.49-0.77 | 0.59 | 0.37-0.94 | 0.95 | 0.89-1.02 | 0.92 | 0.86-0.99 |
| 4 Central-metro | 1 | Referent | 1 | Referent | 1 | Referent | 1 | Referent |
| 5 Northeast | 1.07 | 0.92-1.23 | 1.14 | 0.86-1.51 | 1.08 | 1.02-1.13 | 1.03 | 0.97-1.08 |

shows significantly higher cardiovascular mortality in the younger groups, is similar to regions 2 and 3 in income but is more urban. Region 5, however, differs significantly in ethnicity.

## Discussion

### Overview

Our data show significant variation in regional cardiovascular mortality in Minnesota, with noteworthy increases for younger men in the northwest and northeast portions of the state. The same pattern of excess cardiovascular mortality recorded in the current study (1987–1997) is also evident in the Minnesota Heart Survey report (1960–1980), which showed the highest rates of cardiovascular mortality occurring in the northeast.[11]

In the following discussion we consider sources of these differences in mortality in terms of regional demographics, including differences in behavior risk factors, socioeconomic status, and access to health care. Possible genetic and environmental factors also are examined.

### Demographic factors (including behavior risk factors and access to care)

The increased cardiovascular mortality noted earlier (1960–1980) in northeast Minnesota could not be attributed to known environmental, socioeconomic, or demographic risk factors, but did suggest that rural residents had lost their health advantage over urban residents.[19] The rural population did not experience declining cardiovascular mortality to the same degree as the urban population. Indeed, more recent studies have associated increased risk for cardiovascular disease mortality with rural life.[20]

One explanation offered for this finding is that rural populations have been slower to adopt lifestyles associated with decreased cardiovascular risk,[21] including smoking abatement,[22-26] diet modification,[27,28] and exercise.[29-31] These are generally accepted as important risk factors for heart disease.

It is less clear, however, what role these factors may play in the observed regional mortality differences noted in this study. The prevalence of smoking in Minnesota by county, for example, does not vary significantly among and between the state regions studied (18.2%–21.6%).[32] The percentage of overweight persons per county in Minnesota is also fairly consistent (27%–30.4%).[32] Further, markedly different mortality rates for the non-urban regions (1, 2, 3, and 5) do not correlate with the percentage of rural residents. Altogether, these data suggest that the "rural lifestyle" does not explain Minnesota's region-

Table 3

*Demographic descriptors for Minnesota state regions based on 1990 U.S. Census Bureau data*

| Region | Total population | Median family income ($) | Population Structure | | |
|---|---|---|---|---|---|
| | | | % urban* | % nonwhite | % Finnish** |
| 1 South-central | 1,575,824 | 30, 830 | 56 | 2.1 | 0.8 |
| 2 West | 169,837 | 21,459 | 26 | 1.1 | 1.2 |
| 3 Northwest | 181,746 | 22,916 | 37 | 4.1 | 1.3 |
| 4 Central-metro | 2,178,034 | 34,421 | 87 | 8.8 | 1.5 |
| 5 Northeast | 269,658 | 23,761 | 59 | 3.2 | 10.4 |

*Urban is defined as "all persons living in urbanized areas and in places of 2,500 inhabitants or more outside urbanized areas" (U.S. Bureau of the Census Population 1990).

**Finnish primary ancestry

al mortality differences.

Another consideration is access to health care and preventive services, specifically, the availability of health care providers, patient travel distance to health care facilities, and inadequate insurance. A 1986 study of out-of-hospital cardiac arrests in northeast Minnesota showed an association between poor response time for cardiac arrest in rural areas and poor survival.[33]

Although it is difficult to ascertain the effect of income on access to medical care and cardiovascular disease, Table 3 suggests that it is a factor in regions 2, 3, and 5. The known association between lower socioeconomic status and increased risk for cardiovascular disease is consistent with this view.[34-37] Region 1 (south-central) offers a contrast. It is relatively rural, but has a higher median income and lower cardiovascular mortality. In addition to these demographic factors, differences in the treatment of myocardial infarction may contribute to regional variation in mortality. These data include reported regional medical practice differences in pre- and post-infarction use of aspirin, B-blockers, and ACE inhibitors in Minnesota and elsewhere.[38]

### Genetic Factors

Ethnic and familial genetic history is an important consideration for cardiovascular disease risk and could be a factor in some of the observed excess cardiovascular mortality.[39] Of interest, in region 5 (northeast) the number of persons of Finnish heritage is relatively large: 10.4% vs. 1.5% in the referent region. The genome pool of the population of Finland carries genetic variants that significantly increase the risk for type 1 diabetes[40,41] and affect the frequency of cardiovascular disease.[42,43] The degree to which these genetic risk factors are expressed in those with Finnish heritage in northeast Minnesota is unknown.

### Environmental factors

Environmental differences among these state regions may affect cardiovascular disease mortality. Farming practices, crops, and pesticide use differ significantly across southern (region 1), west (region 2), and northwest Minnesota (region 3). Each region identified is also unique geologically and may have different ground water trace elements. These and other environmental factors can affect cardiovascular disease. For example, dioxins, a contaminant of chlorophenoxy herbicides and a contaminant in some wood pulp production processes, have been associated with increased ischemic heart disease mortality.[44,45] Interestingly, a recent study of chemical toxicants in the lake water of the Duluth-Superior Harbor and its principal river tributaries found dioxin levels exceeding applicable water-quality standards.[46] Similarly, arsenic is a natural contaminant of some ground water supplies in Minnesota, especially in the Red River Valley.[47] Associations between elevated levels of ground water arsenic and increased cardiovascular disease have been reported.[48-50] By contrast, the frequency and level of ground water contamination by pesticides is higher in region 1 (south-central) than elsewhere in the state.[51] In the current study, cardiovascular mortality in southern Minnesota is lower than the mortality in the referent region. These results suggest that ground water contamination by pesticides commonly used in southern Minnesota is not a cardiovascular disease mortality risk factor. Finally, these contrasting water contaminant data are inconsistent regarding CHD risk.

## *Summary*

There are long-standing regional differences in cardiovascular mortality in our state, particularly among men and women aged 25–59. The potential causes (demographic, environmental, and genetic factors) for these regional differences need further study. In the short term, increased preventive care, risk reduction, and improved access to medical care in parts of rural Minnesota should be a primary health care goal. MM

*Acknowledgments*

The authors wish to thank the staff of state (Minnesota Department of Health, Minnesota Pollution Control Agency, Minnesota Department

of Agriculture, and Minnesota Department of Natural Resources) and federal agencies (USEPA, USGS) who freely provided information and advice for this project. This project was partially funded by an NIH grant (RO1-ES08161) and continuing support from the Minnesota Legislature.

*John Morrison is a second-year medical student at the University of Minnesota. Vincent Garry, M.D., is a professor and director of the University of Minnesota Laboratory of Environmental Medicine and Pathology. Mary Harkins is the specialist for epidemiology and statistics at the University of Minnesota Laboratory of Environmental Medicine and Pathology. Melissa Cohen is the statistical analyst at the University of Minnesota Laboratory of Environmental Medicine and Pathology. Judy Palermo is a database analyst for the Minnesota Center of Health Statistics.*

## REFERENCES

1. U.S. Department of Health and Human Services. Healthy People 2000 midcourse review and 1995 revisions. Public Health Services, 1995.
2. Ellsworth DL, Sholinsky P, Cashell J, et al. Coronary heart disease at the interface of molecular genetics and preventive medicine. Am J Prev Med 1999;16(2):122-33.
3. Thom T, Kannel W. The downward trend in cardiovascular disease mortality. Annu Rev Med 1981;32:427-34.
4. McGovern PG, Pankow JS, Shahar E, et al. Recent trends in acute coronary heart disease mortality, morbidity, medical care, and risk factors. N Engl J Med 1996; 334:884-90.
5. Sytkowski PA, Kannel WB, D'Agostino RB. Changes in risk factors and the decline in mortality from cardiovascular disease: the Framingham heart study. N Engl J Med 1990;332:1635-41.
6. Gillum RF. Trends in acute myocardial infarction and coronary heart disease death in the United States. J Am Coll Cardiol 1993;23:1273-7.
7. Vartiainen E, Puska P, Pekkanen J, et al. Changes in risk factors explain changes in mortality from ischemic heart disease in Finland. BMJ 1994;309:23-7.
8. Davis WB, Hayes CG, Knowles M, et al. Geographic variation in declining ischemic heart disease mortality in the United States, 1968–1978. 1. Rates and change, whites ages 35–74 years. Am J Epidemiol 1985;122:657-72.
9. Kimm SYS, Ornstein SM, Delong ER, et al. Secular trends in ischemic heart disease mortality: regional variation. Circulation 1983;68:3-8.
10. Gillum RF, Hannan PJ, Prineas MB, et al. Coronary heart disease mortality trends in Minnesota, 1960–80: The Minnesota Heart Survey. AJPH 1984;74:360-2.
11. Gillum RF, Jacobs DR, Russel LV, et al. Cardiovascular mortality trends in Minnesota, 1960–1978. The Minnesota Heart Survey. J Chron Dis 1984;37(4):301-9.
12. Garry VF, Schreinemachers D, Harkins ME, Griffith J. Pesticide appliers, biocides, and birth defects in rural Minnesota. Environ Health Perspect 1996;104(4):394-9.
13. Schreinemachers D, Creason JP, Garry VF. Cancer mortality in agricultural regions of Minnesota. Environ Health Perspect 1999;107(3):205-11.
14. Garry VF, Kelly JT, Sprafka JM, Edwards S, Griffith J. Survey of health and use characterization of pesticide appliers in Minnesota. Arch Environ Health 1994; 49:337-43.
15. Ojakangas RW, Matsch CL. Minnesota's geology. Minneapolis: University of Minnesota Press, 1989.
16. Kelly PL, Hines JW. Pesticide use in rural Minnesota. St. Paul, MN: Minnesota Department of Agriculture,1992.
17. University of Minnesota. Chemicals used on four crops in Minnesota during 1991. Station Bulletin 603-1993. St. Paul, MN: Minnesota Extension Service, 1993.
18. Minnesota Department of Agriculture. Minnesota agriculture statistics 1993. St. Paul, MN: Minnesota Department of Agriculture, 1993.
19. Schneider D, Greenburg MN. Death rates in rural America, 1939–1981: convergence and poverty. In: Gesler WM, Risketts, TC, eds. Health in rural North America: the geography of health care services and delivery. New Brunswick, NJ: Rutgers University Press, 1992:55-85.
20. Ingram DO, Gillum RF. Regional and urbanization differentials in coronary heart disease mortality in the United States, 1968–85. J Clin Epidemiol 1989;42:857-68.
21. Pearson TA, Lewis C. Rural epidemiology: insights from a rural population laboratory. Am J Epidemiol 1998; 148(10):949-57.
22. Tverdal A, National Health Screening Service, Olso, Norway. Calculation of risk for the development of acute myocardial infarction in the normal population based on long-term follow-up studies: smokers compared with non-smokers. J Cardiovasc Risk 1999;6(5):287-91.
23. Herlitz J, Bengston A, Hjalmarson A, Karlson BW. Smoking habits in consecutive patients with acute myocardial infarction: prognosis in relation to other risk indicators and to whether or not they quit smoking. Cardiology 1995;86:496-502.
24. Sonke GS, Stewart AW, Beaglehole R, Jackson R, White HD. Comparison of case fatality in smokers and non-smokers after acute cardiac event. BMJ 1997;315:992-3.
25. Kuller LH, Ockene JK, Meilahn E, et al. Cigarette smoking and mortality. Prev Med 1991;20:638-54.
26. Shaten JB, Kuller LH, Neaton JD. Association between baseline risk factors, cigarette smoking, and CHD mortality after 10.5 years. Prev Med 1991;20:655-69.
27. Key TJ, Fraser GE, Thorogood M, Appleby PN, et al. Mortality in vegetarians and non-vegetarians: a collaborative analysis of 8,300 deaths among 76,000 men and women in five prospective studies. Public Health Nutr 1998;1(1):33-41.
28. Sabate J. Nut consumption, vegetarian diets, ischemic heart disease risk, and all-cause mortality: evidence from epidemiologic studies. Am J Clin Nutr 1999;70(Suppl 3):500S-3S.
29. Schlierf G, Schuler G, Hambrecht R, et al. Treatment of coronary heart disease by diet and exercise J Cardiovasc Pharmacol 1995;25:S32-4.
30. Despres JP, LamarcheB. Low-intensity endurance exercise training, plasma lipoproteins and the risk of coronary heart disease J Intern Med 1994; 236:7-22.
31. Morris JN. Exercise in the prevention of coronary heart disease: today's best buy in public health. Med Sci Sports Exerc 1994;26:807-14.
32. Minnesota Department of Health. Minnesota Health Profiles 1996. Minneapolis, MN: Minnesota Department of Health, 1996.
33. Bachman JW, McDonald GS, O'Brien PC. A study of out-of-hospital cardiac arrests in northeastern Minnesota. JAMA 1986; 256(4):477-83.
34. Luepker RV, Rosamond WD, Murphy R, et al. Socioeconomic status and coronary heart disease risk factor trends: the Minnesota Heart Survey. Circulation 1993;88(part I):2172-9.
35. Lynch JW, Kaplan GA, Cohen RD, Tuomilehto J, Salonen JT. Do cardiovascular risk factors explain the relation between socioeconomic status, risk of all-cause mortality, cardiovascular mortality, and acute myocardial infarction? Am J Epidemiol 1996;144(10):934-42.
36. Gonzalez MA, Artalejo FR, Calcero JR. Relationship between socioeconomic status and ischaemic heart disease in cohort and case-control studies: 1960–1993. International Epidemiological Association 1998;27:350-8.
37. Lynch JW, Everson SA, Kaplan GA, Salonen R, Salonen JT. Does low socioeconomic status potentiate the effects of

heightened cardiovascular responses to stress on the progression of carotid atherosclerosis. Am J Public Health 1998;88:389-94.
38. O'Conner GT, Quinton HB, Traven ND, et al. Geographic variation in the treatment of acute myocardial infarction. JAMA 1999;281(7):627-33.
39. Funke H, Assmann G. Strategies for the assessment of genetic coronary artery disease risk. Curr Opin Lipidol 1999;10:285-91.
40. Laakso M, Reunanen A, Klaukka T, Aromaa A, et al. Changes in the prevalence and incidence of diabetes mellitus in Finnish adults, 1970–1987. Am J Epidemiol 1991;133:850-7.
41. Akerblom HK, Reunanen A. The epidemiology of insulin-dependent diabetes mellitus (IDDM) in Finland and in Northern Europe. Diabetes Care 1985;8(Suppl 1):10-16.
42. Pastinen T, Perola M, Niini P, et al. Array-based multiplex analysis of candidate genes reveals two independent and additive genetic risk factors for myocardial infarction in the Finnish population. Hum Mol Genet 1998;7(9):1453-62.
43. Jousilahti P, Vartiainen E, Tuomilehto J, et al. Role of known risk factors in explaining the difference in the risk of coronary heart disease between eastern and southwestern Finland. Ann Med 1998;30:481-87.
44. Vena J, Boffetta P, Becher H, et al. Exposure to dioxin and nonneoplastic mortality in the expanded IARC international cohort study of phenoxy herbicide and chlorophenol production workers and sprayers. Environ Health Perspect 1998; 106(Suppl 2):645-53.
45. Janys DF, Berger J, Gurn P, et al. Exposure to polychlorinated dioxins and furans (PCDD/F) and mortality in a cohort of workers from a herbicide-producing plant in Hamburg, Federal Republic of Germany. Am J Epidemiol 1995;142:1165-75.
46. Minnesota Pollution Control Agency, Environmental Outcomes Division, Groundwater and Toxics Monitoring. Lake Superior/Duluth-Superior Harbor toxics loading study. September 1999. Minnesota Pollution Control Agency, 1999.
47. Minnesota Pollution Control Agency. Baseline study of domestic wells in Minnesota. St. Paul, MN: Minnesota Pollution Control Agency, 1999.
48. Chen C-J, Chiou H-Y, Chiang M-H, et al. Dose-response relationship between ischemic heart disease mortality and long-term arsenic exposure. Arterioscler Thromb Vasc Biol 1996;16:504-10.
49. Tseng C-H, Chong C-K, Chen C-J, Tai T-Y. Dose-response relationship between peripheral vascular disease and ingested inorganic arsenic among residents in blackfoot disease endemic villages in Taiwan. Atherosclerosis 1996;120:125-33.
50. Lewis DR, Southwick JW, Ouellet-Hellstrom R, Rench J, Calderon RL. Drinking water arsenic in Utah: a cohort mortality study. Environ Health Perspect 1999;107:359-65.
51. Hines JW, Juenemann MR. Minnesota Department of Agriculture water quality monitoring program common detection data report. St. Paul, MN: Minnesota Department of Agriculture, June 1996.

**CentraCare Clinic** *is a progressive and growing 108-physician multi-specialty clinic with 9 Central Minnesota sites. Our clinics offer a comprehensive income and benefits package and are conveniently located between the Twin Cities and prime Minnesota lakes area. Central Minnesota offers an outstanding lifestyle with quality schools and abundant recreational activities. CentraCare Clinic is currently recruiting for the following locations:*

**CENTRACARE Clinic**
River Campus

***Join*** *an exceptional 65-physician specialty clinic which currently has openings in the following specialties:*

**Allergy**
**Internal Medicine**
*St. Cloud/Little Falls*
**Dermatology**
**Neurology**
**Neurosurgery**
**Gastroenterology**
**Pediatric Intensivist**
**Infectious Disease**
**Rheumatology**
**Non-Interventional Cardiology**

**CENTRACARE Clinic**
Heartland

***Join*** *an experienced 6-physician clinic with an opening in:*

**Family Practice Physician who practices Obstetrics**

**CENTRACARE Clinic**
Women & Children's Center

***Join*** *an exceptional 21-physician clinic specializing in pediatrics and obstetrics/gynecology which currently has openings in the following specialties:*

**Allergy**
**Pediatrics**
**Obstetrics/Gynecology**
**Obstetrics specializing in Endocrinology & Reproductive Health**

*For further information, please call or write:*

***Karla Donlin***
***Kristine Cunningham***
*Physician Recruiters*

*1406 Sixth Avenue North*
*St. Cloud, MN 56303*
***1-800-835-6652***

*Not a health care profession shortage area.*

**CENTRACARE Clinic**



**Hospice care**, offering physical, emotional, and spiritual assistance to terminally ill people and their families, is the subject of this unique exhibition featuring the work of five outstanding American photographers. By immersing artists in the world of patients, families, and health care providers, each project documents individual perspectives on the collaborative experience of living and working in hospice environments throughout the country.

**HOSPICE:** A PHOTOGRAPHIC INQUIRY conveys the power with which art is able to reveal a facet of life that may not be part of our experience.

Frederick R. Weisman Art Museum at the University of Minnesota

*presents*

# **HOSPICE:** A PHOTOGRAPHIC INQUIRY

**May 20-August 13, 2000**

**Opening Reception**
Saturday, May 20th 7-10 pm

For information on education programs call 612-625-9494

Above: Jack Radcliffe, *Gill,* February 25, 1995, Gelatin sliver print, Courtesy of the artist

**HOSPICE:** A PHOTOGRAPHIC INQUIRY was organized by the Corcoran Gallery of Art in collaboration with the National Hospice Foundation. Its presentation at the Weisman is made possible through the generous support of Allina Health Systems, HealthSystem Minnesota, Minnesota Hospice Organization, North Hospice, Pathways: A Health Crisis Resource Center, Rice Memorial Hospice, as well as many other organizations and individuals.

**w**eisman **a**rt **m**useum
333 East River Road
Minneapolis, MN
www.weisman.umn.edu

UNIVERSITY OF MINNESOTA

# Loneliness: An Overlooked and Costly Health Risk Factor

*Physicians should recognize and treat loneliness as a factor in physical illness.*

Jeffrey Geller, M.D.

*There are so many sorrows in today's world! These sorrows are due to hunger, to dislodging, to all kinds of illnesses. I am convinced that the greatest of all sorrows is to feel alone, to feel unwanted, deprived of all affection. It consists in not having anyone, in having gotten to the point of forgetting what human contact is, what human love is, what it means to be wanted, to be loved, to have a family.*

Mother Teresa (1910–1997)

**Editor's Note:** Few of us have to think too long or hard to understand the potential impact of loneliness on health. Everything seems more burdensome, more painful, and more frightening when there's no one to share it with. I met Dr. Jeffrey Geller at a family medicine research meeting and was struck by the importance of his message that loneliness is a major and costly health risk that is often overlooked by physicians. If we consider the impact of loneliness on our patients, we may find that our medical care is more effective.

Barbara Yawn, M.D., M.Sc.
Series Editor

In the realm of human suffering, loneliness has always been considered a psychological hardship. In our society, loneliness has also become a costly hardship, both economically and in its toll on human life. Often cited by the media as a motivation for suicide or violent acts against others, including high school shootings, loneliness is a condition that physicians have long recognized in their patients but have not traditionally treated. It's time to address that oversight.

But first, what exactly is loneliness? Loneliness is the perception that you have no one to turn to for emotional or intellectual support if you really need it. That is, you may have 100 friends, but if you feel you can't completely confide in, trust, or depend on any of them, then you may still be lonely.

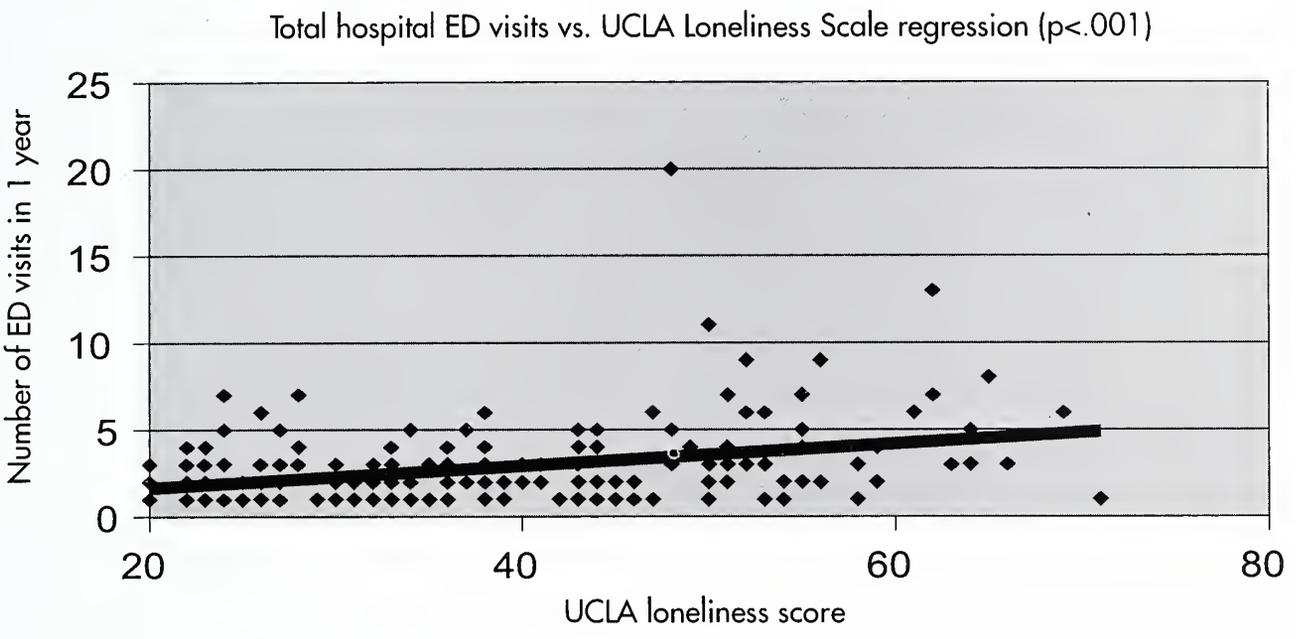
Recent research has linked loneliness to higher medical services utilization by some patients. Loneliness for a romantic partner has been shown to be a significant factor in physician utilization independent of depression, somatic complaints, and health status.[1] People who are lonely have been shown to use the emergency department 60% more often than their nonlonely counterparts, despite the same level of chronic illness and acuity of illness.[2] In a study that controlled for age, physical health, income, and education, elderly people who were lonely were twice as likely as other elderly people to be admitted to nursing homes over a four-year period.[3]

Some studies have implicated loneliness in physical illness. For example, loneliness has been shown to double the risk of catching a cold.[4] Lonely people are four times more likely than others to suffer a heart attack,[5] and four times more likely to die from it.[6] By comparison, smokers are only twice as likely as nonsmokers to die from a heart attack.[7] Yet the attention we give loneliness as a health risk pales against the amount of time, money, and effort we spend advising our patients to quit smoking.

Unlike smoking, however, loneliness isn't an observable behavior. Furthermore, self-reported loneliness is a poor indicator of actual loneliness. For example, compared with results of standardized testing, women tend to over-report loneliness while men traditionally underreport loneliness when asked about it directly.[8] The simple absence of others from one's environment is not a reliable indicator of loneliness either. In fact, people who are socially isolated tend to be less lonely than those who surround themselves with people.[9] Another surprise is that elderly people tend to be less lonely than younger

Figure 1

*Loneliness and hospital utilization*




*Note: A score of 20 means an individual is not lonely.*

people.[9] That may be because the elderly, who are usually more socially or physically isolated, also tend to be aware of services or people who can provide support.

In our study of 168 emergency room patients, we found a positive correlation between loneliness and emergency services utilization[2] (see Figure 1). We are finding the same relationship in current studies of health center utilization as well as in studies of hospital utilization during pregnancy. These results suggest that reducing loneliness could lower health service utilization.

## *'Relative' Loneliness*

Changes in life circumstances may make an individual more lonely on one day than on another. The term that I use to distinguish this type of loneliness from the general type is "relative" loneliness. People who experience periods of relative loneliness may be just as likely to use health services as those who suffer from general loneliness.

To understand the mechanism and impact of relative loneliness, consider this example: A young girl has many social, intellectual, and emotional supports growing up and thus is not very lonely. However, one day she gets an 'F' on a test in Spanish class. She feels bad because she thinks the grade indicates she might be stupid or incapable of learning a foreign language. Though nothing else has changed in her life, she may now feel uncomfortable around other students who are discussing grades. She may also have difficulty telling her parents about her failure for fear of punishment. As a result, the girl does not receive the emotional support she needs to overcome her bad feelings. The more important Spanish and grades are to her, the lonelier she'll feel.

As this girl grows into adulthood, she may have many areas of relative loneliness pertaining not only to previous school failures but also, perhaps, to relationships, economic matters, and medical issues. Without support in so many areas, her general loneliness will increase and she will be more prone to medical illness, depression, and stress, and more likely to visit a medical provider. That presents an important opportunity for her to discuss parts of her life that she cannot talk about with her social supports. If this opportunity to diagnose loneliness is missed, however, the cycle may continue, with further loneliness, illness, suffering, and more frequent medical resource utilization.

## *Diagnosing Loneliness*

Any person visiting a medical practice may be lonely. Because loneliness is a perception, it can be difficult to discern in others.[9] Loneliness is often confused with social isolation. The UCLA Loneliness Scale, a continuous scale with scores ranging from 20 (not lonely) to 80 (lonely), was developed in part to distinguish loneliness from social isolation.[10] The scale, which evaluates perceptions of support, effectively measures general loneliness independent of gender and social isolation (see Figure 2). This questionnaire has been used for many years with all types of patient populations and is widely accepted as the gold standard for measuring general loneliness. The mean score for general populations is about 40, with a standard deviation of +/-9.[9]

Figure 2

*UCLA Loneliness Scale (version 3)*

Instructions: The following statements describe how people sometimes feel. For each statement, please indicate how often you feel the way described by writing a number in the space provided. Here is an example:

How often do you feel happy?

If you never felt happy, you would respond "never," if you always feel happy, you would respond "always."

| NEVER | RARELY | SOMETIMES | ALWAYS |
|---|---|---|---|
| 1 | 2 | 3 | 4 |

| | |
|---|---|
| *1. How often do you feel that you are "in tune" with the people around you? | _____ |
| 2. How often do you feel that you lack companionship? | _____ |
| 3. How often do you feel that there is no one you can turn to? | _____ |
| 4. How often do you feel alone? | _____ |
| *5. How often do you feel part of a group of friends? | _____ |
| *6. How often do you feel that you have a lot in common with the people around you? | _____ |
| 7. How often do you feel that you are no longer close to anyone? | _____ |
| 8. How often do you feel that your interests and ideas are not shared by those around you? | _____ |
| *9. How often do you feel outgoing and friendly? | _____ |
| *10. How often do you feel close to people? | _____ |
| 11. How often do you feel left out? | _____ |
| 12. How often do you feel that your relationships with others are not meaningful? | _____ |
| 13. How often do you feel that no one really knows you well? | _____ |
| 14. How often do you feel isolated from others? | _____ |
| *15. How often do you feel you can find companionship when you want it? | _____ |
| *16. How often do you feel that there are people who really understand you? | _____ |
| 17. How often do you feel shy? | _____ |
| 18. How often do you feel that people are around you but not with you? | _____ |
| 19. How often do you feel that there are people you can talk to? | _____ |
| *20. How often do you feel that there are people you can turn to? | _____ |

Scoring: Items with an asterisk should be reversed (i.e., 1=4, 2=3, 3=2, 4=1), and the scores for each item then summed together. Higher scores indicate greater degrees of loneliness.

Note: Copyright 1994 by Daniel W. Russell. Reprinted with permission.

The UCLA questionnaire is not without limitations. Administering and scoring the instrument is time-consuming, and, more important, the scale does not uncover the etiology of the loneliness.

### Patient interview

Perhaps the best method for diagnosing loneliness is a patient interview devised to identify a patient's perception of the availability of support. Tailoring the interview to the particular patient's gender, age, and circumstance is important. For instance, an appropriate question for a teenager might be, "Do you feel that there are people you could talk to about sexual activity if you needed advice?"

In an initial meeting with a patient, open-ended questions might be more effective. For example: "Is there anything that you really want to say to someone, but there is no one who will listen," or, "Is anything going on in your life that you don't feel comfortable telling people about?" Such questions can yield a great deal of information and provide insight into areas of relative loneliness as well as loneliness in general.

## *Treatment*

Alternative medicine, which tends to be more integrated with psychosocial models of health than Western medicine, treats loneliness using hypnosis, acupuncture, and wellness groups. Hypnosis may be an effective treatment because loneliness is a perception, and hypnosis can change one's perception. Acupuncture reflects a biopsychosocial approach to healing, taking into account the whole individual—including any loneliness—in evaluating energy levels and developing treatment plans. Wellness groups bring people together to promote physical, spiritual, and mental well-being, and thus also have potential in treating loneliness.

Western medicine, in contrast, does not have a clear protocol for treating loneliness. It commonly views loneliness as an entity separate from physical health. But once it is diagnosed, loneliness can be successfully treated under the Western medical model.

I have found that the most effective way to treat lonely patients is to determine the areas of relative loneliness in their life and to express a willingness to

Figure 3

*Skills for friendship*

**Recipe for companionship**

1. Be yourself.
2. Be honest with the other person and yourself.
3. Show that you trust them and they can trust you.
4. Accept their point of view (even if you disagree).
5. Don't be defensive.
6. Don't smother people. (You can't control what other people do.)
7. Show TLC (tender loving care). Let them know that you are there for them.
8. Find common interests and get involved with that interest together.
9. Have a sense of humor. (Don't take everything so seriously.)
10. Don't hold on to things. Not every relationship is right, so be able to admit that.

This is an adaptation of "Recipe for Companionship or How to Get Someone to Fall in Love with You." Written by Dorothy Zarren. Printed with permission.

discuss them. Use of noncritical listening skills is essential to maintaining rapport, since a patient may have low self-esteem and self-confidence. Physicians can encourage self-confidence in their patients by pointing out areas in which the patient is special and by describing how the person can and does contribute to society. Physicians can also help patients identify resources and people already in their lives who can provide support. If no supports can be identified and the physician is unable to act as a support, then a referral for psychological counseling may be appropriate.

Regardless of the medical model, communication is fundamental to overcoming loneliness. Sometimes barriers—poverty, foreign language, no phone, etc.—can keep people from visiting or calling supports that live far away. If these barriers cannot be overcome, it is important to establish new supports locally.

Some patients need to learn the skills of friendship (see Figure 3). To receive the support we need ourselves, we must be able to give support to others. One way to learn the communication skills essential to making friends is to model the skills of effective communicators.

## *Depression and Loneliness*

Because depression changes people's perception of their place in the world, having this illness might change one's sense of support and thus one's level of loneliness. Depression is therefore hypothesized to be related to loneliness, as well as to other psychological states, such as anxiety.[10] Loneliness may also be a prodromal sign of depression, preceding the illness by one to three years.[3] Perhaps each causes the other. Still, a person can be lonely and not depressed, or depressed but not lonely. Therefore, screening for mental illness—and treatment when appropriate—should be the first step in reducing loneliness.

## *Conclusion*

Loneliness is a major and costly health risk that is often neglected in the medical setting. A growing body of evidence shows an association between loneliness and physical illness and increased health services utilization. As a medical community, we need to take loneliness more seriously and develop reliable screening, diagnostic, treatment, and prevention protocols to alleviate this form of human suffering. MM

*Jeff Geller is the director of integrative medicine for the Greater Lawrence Family Health Center and Lawrence Family Practice Residency Program as faculty for Tufts University School of Medicine. He is completing a fellowship in faculty development in integrative medicine. He is also a faculty member for the New England Society for Clinical Hypnosis and is accredited in acupuncture by UCLA School of Medicine.*

REFERENCES

1. Feldman E. Loneliness and physician utilization, abstracted. NAPCRG 1998;26:14.
2. Geller J, Janson P, McGovern E, Valdini A. Loneliness as a predictor of hospital emergency department use. J Fam Pract 1999;48:801-4.
3. Russel D, Cutrona C, De La Mora A. Loneliness and nursing home admission among rural older adults. Psychol and Aging 1997;12:574-89.
4. Cohen S, Doyle W, Skoner D, Rubin B, Gwaltney J. Social ties and susceptibility to the common cold. JAMA 1997;277: 1940-4.
5. Orth-Gomer K, Unden A, Edwards M. Social isolation and mortality in ischemic heart disease. Acta Med Scand 1988;224: 205-15.
6. Berkman LF, Leo-Summers L, Horwitz R. Emotional support and survival after myocardial infarction. Ann In Med 1992; 117:1003-9.
7. Doll R, Peto R, Wheatley K, Gray R, Sutherland I. Mortality in relation to smoking: 40 years' observations on male British doctors. BMJ 1994;309:901.
8. Borys S. Gender differences in loneliness. Pers and Soc Psychol Bull 1985;11:63.
9. Russell D. UCLA Loneliness Scale (Version 3): reliability, validity, and factor structure. J Pers Assess 1996;66:20.
10. Russell D, Peplau LA, Ferguson ML. Developing a measure of loneliness. J Pers Assess 1978;42:290-4.

# New Safe Harbors Expand Protections against Prosecution or Sanctions

*Attorneys and their physician clients can now choose from 23 safe harbors to structure business ventures.*

American Health Lawyers Association

The new and expanded safe harbors from the Anti-Kickback Statute announced November 18 by the DHHS Office of Inspector General (OIG) were welcomed by physicians and their attorneys. Thomas R. Reardon, M.D., president of the American Medical Association, said, "It will be easier for physicians to get into various arrangements that will help facilitate patient care." It will help especially in underserved areas, Reardon added.

Charles B. Oppenheim, a partner in Foley & Lardner, Los Angeles, said the depth and breadth of financial arrangements now immune from prosecution "is impressive." Oppenheim said the greatest benefit will extend to managed care relationships, physician investments in ambulatory surgery centers (ASCs), and arrangements in medically underserved areas, including physician recruitment, joint ventures, and hospital purchases of physician practices.

With these eight final safe harbors and the issuance of two interim final safe harbors dealing with the shared risk exception, health care lawyers and their clients now have 23 safe harbors to work with as they seek to structure ventures that are on the safe side of the Anti-Kickback Statute. The OIG also clarified six of the 11 original safe harbors, first issued in 1991. The OIG based the changes in part on the voluminous comments it got when it proposed changes to the original safe harbors in 1993 and 1994. In the 40-page final rule published in the November 19 *Federal Register,* 64 Fed. Reg. 63518, the OIG said that safe harbors "are designed to permit individuals and entities to freely engage in business practices and arrangements that encourage competition, innovation, and economy." They impose no requirements on anybody, but those who voluntarily comply with them "have the assurance that their business practices are not subject to any enforcement actions" under the anti-kickback law, the OIG said.

While some in the industry had urged the OIG to give providers a grace period to restructure existing arrangements to conform to the final safe harbors, the OIG demurred. "[W]e will exercise our discretion to be fair to the parties" who made good faith efforts to structure deals in accordance with the 1991 final rule, but who now need to adjust the arrangement, the OIG said. "We are not setting a specific 'grace period,' as we believe that the reasonable time period for restructuring an arrangement will vary depending on the type and complexity of the arrangement." As required by the 1996 Health Insurance Portability and Accountability Act (HIPAA), the OIG also issued its annual call for suggestions on new and revised safe harbors and special fraud alerts. That solicitation appeared in the *Federal Register* on December 10, 64 Fed. Reg. 69217.

## *The Eight New Safe Harbors*

• **Investments in ASCs.** Originally, this safe harbor would only have protected ASCs that are 100 percent owned by surgeons. Now it protects four types of freestanding ambulatory surgery centers: those owned just by surgeons; single-specialty ASCs (e.g., gastroenterologists), multispecialty ASCs (e.g., both surgeons and gastroenterologists), and hospital/physician ASCs. Physicians cannot borrow money from the ASC or from other investors to purchase their share, and doctors must tell patients if they refer them to a surgery center in which the doctor holds an interest. To qualify for this safe harbor, physician investors generally must be using the ASC as an extension of their office practice. Hospital investors cannot be in a position to make referrals. Also, this safe harbor does not apply to other physician-owned joint ventures, such as cardiac catheterization labs, dialysis facilities, or radiation oncology labs. The OIG said it was "expressly departing from the underlying rationale for our original safe harbor proposal, which was

Copyright 1999 American Health Lawyers Association, Washington, DC. Reprint permission granted. Further reprint requests should be directed to American Health Lawyers Association, 1025 Connecticut Avenue NW, Suite 600, Washington, DC 20036, 202/833-1100.

# The liability prescription more doctors trust




**MMIC—INSURANCE EXPERTISE FOR TODAY'S MEDICAL PROFESSIONALS**

### Leading the industry with creative solutions that meet your needs

More than 97% of MMIC's policyholders renew their coverage every year. Why? Because they trust MMIC to provide them with the highest quality medical professional insurance coverage, individualized attention and unsurpassed customer service.

### Providing flexible customized coverage with a complete array of services

Our spectrum of services is closely aligned to meet the unique needs of individual physicians and physician groups. For nearly 20 years, MMIC has offered personalized underwriting services, prompt and aggressive claims management and innovative risk management programs.

### Your esteemed reputation is our first priority

With MMIC, you'll have peace of mind. As a physician-owned company, your success is our success and together we can confidently meet the challenges of the future. Our staff of experienced insurance professionals understand the complexities and challenges of the health care industry and are eager to provide you the best malpractice insurance coverage available today.

***To learn more about our full range of liability and business systems solutions, visit us at www.midmedical.com or call us today! 1-800-328-5532***

MMIC

MIDWEST MEDICAL INSURANCE COMPANY

*Your Best Choice for Medical Malpractice Insurance Protection*

the professional fee/facility fee differential." In the future, the OIG will look more broadly for signs "that an ASC investment represents the extension of a physician's office space and not a means to profit from referrals."

• **Joint Ventures in Underserved Areas.** This safe harbor is expanded to include urban as well as rural underserved areas. It also reduces from 85 percent to 75 percent the volume of business that must be derived from residents of the underserved area. It provides a grace period for investments in entities that down the road no longer meet the definition of "underserved." Physician investors can own up to half the entity. Revenues from referral source investors are not limited.

• **Investment Interests in Group Practices.** This safe harbor, narrower than the original proposal, protects returns on investments in the group practice itself if the group meets the Stark law's definition. It also protects investments in solo practices conducted through the solo practitioner's professional corporation or a separate legal entity.

• **Recruitment to Underserved Areas.** This safe harbor also applies to urban and rural areas alike that have shortages of medical professionals. The OIG dropped a provision that the physicians recruited must have relocated at least 100 miles. But 75 percent of revenues must come from new patients not previously seen by the doctor, and 75 percent of the patients must live in the underserved area or belong to underserved groups such as the homeless or migrant workers. The recruitment benefits cannot last longer than three years.

• **Subsidies for Obstetrical Malpractice Insurance.** At least 75 percent of the patients must be medically underserved. Full subsidies may be paid for full-time obstetricians or nurse midwives. For those who deliver babies part time, the safe harbor protects only that portion of their malpractice insurance costs.

• **Specialty Referral Agreements.** This safe harbor does not protect referral arrangements between parties that share or split global Medicare fees (such as blanket agreements between ophthalmologists and optometrists to split surgical fees for cataract surgeries). The OIG said the safe harbor will protect agreements to refer patients to a specialist who then sends those patients back when the specialized work is done. But it "does not protect generalized cross-referral arrangements of the 'you send me your patients and I'll send you mine' variety," the OIG said.

• **Cooperative Hospital Service Organizations.** This protects these 501(e) tax-exempt organizations that nonprofit hospitals form to handle their own billing, purchasing, and clinical services.

• **Modification of Sale of Practice Safe Harbor.** This existing safe harbor has been modified to allow rural hospitals to buy and hold the practice of a retiring physician until a new physician can be recruited. The sale must be completed within three years, and the hospital must make a good faith effort to recruit a new physician in one year.

## *Sham Transactions Rule Withdrawn*

The OIG also clarified six of the original 11 safe harbors—the ones for large and small entity investments; space rental; equipment rental; personal services and management contracts; referral services; and discounts—and it withdrew a proposed "sham" transactions rule.

Many commenters had complained about the vagueness of that proposal, and the OIG said that "upon further consideration," it decided to withdraw it. "We emphasize, however, that for purposes of determining compliance with the safe harbors, we will evaluate both the form and substance of arrangements," the OIG cautioned.

The OIG also published an interim final rule with request for comment on the statutory exception to the anti-kickback law for shared risk arrangements, 64 Fed. Reg. 63504. This rule, carrying out a provision in HIPAA, creates two new safe harbors that reflect the consensus reached on January 22, 1998, by a negotiated rulemaking committee composed of industry and government representatives. The first safe harbor protects certain arrangements between managed care plans and health care providers they contract with; the second applies to certain fee-for-service arrangements between managed care plans and providers who are placed at substantial financial risk.

Health care providers have every incentive to make their deals fit within the square corners of a safe harbor if possible. While arrangements outside a safe harbor are not per se illegal, the penalties for violating the anti-kickback law are steep: up to five years in prison, criminal fines up to $25,000, civil penalties up to $50,000, and exclusion from participating in Medicare, Medicaid, and other federal health programs. MM

**For more details on the new safe harbors, see Oppenheim's analysis, "New and Revised Safe Harbors Expand Protection from the Anti-Kickback Statute," in the January 2000* Health Law Digest.

**INTERNAL MEDICINE PHYSICIANS**

United Pain Center in St. Paul is seeking two BE/BC internal medicine physicians interested in working in a multidisciplinary setting managing patients with acute, subacute and chronic pain. This is a challenging opportunity to work with a highly motivated and successful team in an outpatient setting. The team consists of anesthesiologists, internal medicine, nurse practitioners, psychologist and social worker. Our center offers a unique blend of interventional procedures, case management, psychological services and complementary therapies with consultative services provided to the hospital. Contact Allina Hospitals and Clinics, Physician Recruitment, 8450 City Centre Drive, St. Paul, MN 55125.
800-248-4921 or
**recruit@allina.com.**
Not a J1 site.

www.allina.com

ALLINA.
*Hospitals & Clinics*

# MEDSTAT

SPECIALIZED MEDICAL TRANSPORTATION

*"A VITAL LINK BETWEEN PATIENT AND PHYSICIAN."*

**DEDICATED TO ASSISTING**

**THE MEDICAL COMMUNITY**

**IN THE PROVISION OF**

**OPTIMAL PATIENT CARE**

**AND CLIENT SERVICES.**

Much more than a courier service, MEDSTAT can meet the unique needs of the medical community. MEDSTAT's relationship with MMBR allows MMA members and their clinics to receive medical transportation rates that are generally below that of traditional transportation companies.

## MEDSTAT is a unique transportation system that can provide you with the following:

- Medical interoffice transport
  PATIENT RECORDS, FILMS, OFFICE CORRESPONDENCE, ETC.
- Laboratory specimen pick up and delivery
- Blood transport services
- Medical distribution
- Medical supply pick up and delivery
- Medical vendor/medical provider transport
- Pharmacy distribution
  RETAIL, WHOLESALE, COMMERCIAL AND INTRAVENOUS
- Home health care/patient interactive pick up and delivery
- Limited on-demand services

MEDSTAT

SPECIALIZED MEDICAL TRANSPORTATION

***MEDSTAT SYSTEMS, INC.***
5155 East River Road, Suite 407
Fridley, MN 55421
Office: 612/586-8146
Toll free: 888/234-3618
Fax: 612/586-8147
email: vitallink@earthlink.net
www.medstatsystems.com

MMBR
Minnesota Medical Business Resources
Owned By MMA & HMS

**Minnesota Medical Business Resources**
3433 Broadway Street NE, Suite 395
Minneapolis, MN 55413
612/623-2860
e-mail: mmbr@mnmed.org
internet: mnmed.org/mmbr

# *A Calendar of Continuing Medical Education Courses*

*Provided as a service of the MMA Committee on Accreditation and CME.* For assistance with scheduling meetings or for information on future medical meetings and CME courses, please contact the MMA office: 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; 612/378-1875. For a complete listing of our calendar, visit the MMA Web site at www.mnmed.org. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

## APRIL 2000

Apr. 6-8 **23rd Annual Spring CME** American Academy of Physician Assistants with Minnesota Academy of Physician Assistants; Minneapolis Marriott SW, Minnetonka, MN. CONTACT: Deb Sanders, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413; 612/331-8598.

Apr. 7 **Cardiac Auscultation: Back to the Basics** Hennepin County Medical Center; Hennepin County Medical Center–Pillsbury Auditorium, Minneapolis, MN. CONTACT: Robin Hoppenrath, HCMC Continuing Medical Education, 701 Park Avenue, Mail Code 861-B, Minneapolis, MN 55415; 612/337-7128.

Apr. 7 **Cardiac Arrhythmias** University of Minnesota; Earle Brown Heritage Center, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

Apr. 7-8 **Pediatric Update** Institute for Research and Education HealthSystem Minnesota; Naegele Auditorium, Park Nicollet Clinic, St. Louis Park, MN. CONTACT: Mary White, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 952/993-3531.

Apr. 8 **Clinical Gait Analysis** HealthPartners Institute for Medical Education with Gillette Children's Specialty Healthcare; Minnesota History Center, Minneapolis, MN. CONTACT: Marilyn Horstman, HealthPartners, Continuing Medical Education, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.

Apr. 8 **Minnesota Society of Anesthesiologists Spring Meeting: An Update on Current Issues** Minnesota Medical Association in joint sponsorship with Minnesota Society of Anesthesiologists; Four Points Hotel, Minneapolis, MN. CONTACT: Robert J. Friedhoff, M.D., Mayo Clinic, Department of Anesthesiology, Rochester, MN 55905; 507/255-4236.

**Lake Superior Lifestyle!**



**We are seeking a *pediatrician* to join our well established professional association in Duluth.**

*If you are looking for a high quality environment in which to live and work, please contact: Susan Streitz, M.D. at 218-722-1408.*

*Our offices overlook one of the world's most stunning bodies of water — Lake Superior.*

**Kundel & Streitz, P.A.**

**1000 East First St., Duluth, MN 55805**

**Brainerd Medical Center, P.A.**
**2024 South Sixth Street, Brainerd, MN 56401**
**218-828-7105 • www.brainerdclinic.com**

**PEDIATRIC OPPORTUNITY**

A Pediatric opportunity exists at Brainerd Medical Center. Would you like to live in a premiere vacation area in a community that will meet any family need?

If so, the Brainerd area is just for you! Look at the possibilities our multi-specialty clinic has to offer:

- No primary call
- Four day work week
- General Pediatric practice plus
- Enlarging consultative practice
- Active teaching program for med students and residents
- Excellent Family Practitioners
- Great Nurse Practitioners
- Superior Urgent Care and ER coverage
- Private Catholic hospital will exceed your expectations
- Above average income opportunity

To obtain more infromation about this Pediatric opportunity, please feel free to contact Pediatrician, Dr. Michael V. Severson, or Curt Nielsen, Clinic Administrator at the above address or phone number.

Apr. 10-14 **Certificate Program in Management for Physicians** University of St. Thomas; University of St. Thomas Campus, Minneapolis, MN. CONTACT: Mary Schmidt, 1800 La Salle Avenue, Suite 100, Minneapolis, MN 55403; 651/962-4130.

Apr. 12-15 **Gait and Clinical Movement Analysis Society** Mayo Foundation; Mayo Foundation, Rochester, MN. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Apr. 13-14 **Spring Refresher** Minnesota Academy of Family Physicians; Radisson Hotel, St. Paul, MN. CONTACT: Minnesota Academy of Family Physicians, 600 S. Highway 169, Suite 1680, St. Louis Park, MN 55426; 952/542-0130 or 800/999-8198.

Apr. 13-15 **Upper Extremity Trauma: New Directions for the 21st Century** Mayo Foundation; Pointe Hilton Resort at Squaw-Peak, Phoenix, AZ. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Apr. 14 **Healthy Transitions: Best Practices for the Care of Adolescents** Hennepin County Medical Center and Adolescent Healthcare Coalition; Pillsbury Auditorium, Hennepin County Medical Center, Minneapolis, MN. CONTACT: Ann Samways, Hennepin County Medical Center, Continuing Medical Education, 701 Park Avenue, Mail Code 861B, Minneapolis, MN 55415-1829; 612/347-2078.

Apr. 14-15 **Annual Ophthalmology Course** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

Apr. 27-28 **OB/Gyn Update** HealthPartners Institute for Medical Education; DoubleTree Hotel, Bloomington, MN. CONTACT: Marilyn Horstman, HealthPartners, Continuing Medical Education, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.

Apr. 27-29 **Breast Diagnosis Update** Institute for Research and Education HealthSystem Minnesota; Park Nicollet Clinic, St. Louis Park, MN. CONTACT: Amie Reynolds, Continuing Medical Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 952/993-3531.

Apr. 27-29 **Surgical Infection Society Annual Meeting** Minnesota Medical Association in joint sponsorship with Surgical Infection Society; Westin Hotel, Providence, RI. CONTACT: Colleen Jensen, Surgical Infection Society, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/362-3737.

Apr. 28-29 **Co-occurring Mental Illness and Chemical Dependency: Dilemmas in Dealing with Assessment, Engagement and Treatment** Minnesota Medical Association in joint sponsorship with Minnesota Association of Community Mental Health Programs, Inc. Minneapolis Airport




**Continuing Medical Education**

sponsored by Allina Health System

**April 2000**

10 **Power Breathing: Improving Teens' Self-Management of Asthma**
PRESENTED BY: Medica Health Plans
LOCATION: United Hospital Conference Center, St. Paul

10 & 11 **Advanced Trauma Life Support (ATLS)**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: United Hospital Conference Center, St. Paul

12 **Advanced Diabetes Management: Complications & Trends**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: United Hospital, St. Paul

**May 2000**

6 **1st Annual Vascular and Echocardiography Conference**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Airport Hilton, Bloomington

**September 2000**

15 **Obsessive-Compulsive Disorders (OCD) in Adolescents**
PRESENTED BY: Allina Behavioral Health
LOCATION: United Hospital, St. Paul

16 **Retina Update 2000**
*(watch for additional information in future editions)*
LOCATION: Phillips Eye Institute, Heilicher Auditorium

18 & 19 **Advanced Trauma Life Support (ATLS)**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: United Hospital Conference Center, St. Paul

**October 2000**

13 **Minnesota and the Aging Driver: Your Options as a Professional**
PRESENTED BY: GRECC/VA Hosp, AAA, State of Minnesota
LOCATION: Earle Brown Heritage Center, Brooklyn Center

26 & 27 **2000 Front Line Neurology Symposium**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: DoubleTree Hotel, by Mall of America, Bloomington

For more information contact:
**Allina Education and Research Administration at (612) 992-2424**

ALLINA HEALTH SYSTEM

®Allina Health System

Visit the Allina CME Calendar at http://www.allina.com

Marriott, Bloomington, MN. CONTACT: Angie Finholt, Minnesota Association of Community Mental Health Programs, Inc,. 1821 University Avenue W, #350-S, St. Paul, MN 55104; 651/642-1903.

Apr. 28-29 **Annual Meeting of the North Central Chapter Infectious Diseases Society of America** North Central Chapter Infectious Diseases Society of America; Accreditation Sponsor: University of Minnesota; Sheraton Inn Airport Minneapolis/St. Paul, MN. CONTACT: Margaret L. Simpson, M.D., HCMC, 701 Park Avenue, Minneapolis, MN 55415-1829; 612/347-2981 or Mary Majerus, 1707 75th Street NW, Rochester, MN 55901; 507/284-3989.

Apr. 29 **Minnesota Society of Pathologists Spring Seminar 2000 and John I. Coe Symposium** Minnesota Medical Association with Minnesota Society of Pathologists; Pillsbury Auditorium, Hennepin County Medical Center, Minneapolis, MN. CONTACT: Robyn Lampright, Minnesota Society of Pathologists, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/362-3736 or 800/342-5662.

MAY 2000

May 1-5 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

May 2-5 **7th International Surgical Pathology Symposium** Mayo Foundation; The Queen Elizabeth, Montreal, Quebec, Canada. CONTACT: Registrar, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

May 4-5 **New and Old Drugs: Best Choices** Institute for Research and Education HealthSystem Minnesota; Northland Inn and Executive Conference Center, Brooklyn Park, MN. CONTACT: Mary White, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 952/993-3531.

May 5 **19th Annual Pediatric Update** Dakota Heartland Health System; Ramada Plaza Suites, Fargo, ND. CONTACT: Gina Nolte, Dakota Heartland Health System, 1720 University Drive South, Fargo, ND 58103; 701/280-4685.

May 6-7 **Behavioral Pediatrics for Primary Care** Children's Hospitals and Clinics; Madden's Resort, Brainerd, MN. CONTACT: Betsy Julius, Medical Education, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/813-5884.

May 8-12 **Family Practice Review: Update 2000** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.


Picture your future with ACMC...
We think you'll fit right in!

Imagine yourself practicing in a 100+ multi-specialty group providing primary and secondary care in over 23 specialties in a network of 10 clinics in Southwestern and West Central Minnesota. You would be surrounded by some of the finest lakes and recreational activities in the state with the comforts of a thriving community — outstanding schools, a variety of churches and a healthy business community.

ACMC offers a secure practice among a well-established and respected physician owned group with a very competitive financial and benefits package.

Positions now available for BE/BC physicians in:

Family Practice
Gastroenterology
General Surgery
Internal Medicine
OB/GYN
Oncology
Orthopedic Surgery

Please contact:
Kari Bredberg, Physician Recruitment
(320) 231-6366 • karib@acmc.com
Affiliated Community Medical Centers
101 Willmar Avenue SW • Willmar, MN 56201
www.acmc.com

Affiliated COMMUNITY Medical Centers, P.A.



80 years and Still Growing.

*We're looking for BC/BE physicians for the following positions:*

**Internal Medicine/Family Practice**—We have multiple opportunities available in our internal medicine department at the main Clinic in Mankato, and for a family practice physician in our nearby Mapleton, MN Clinic. The Mankato Clinic is a multi-specialty group practice with 75+ providers and a service area population of over 250,000. Our scenic riverside community has big city amenities, services, shopping and restaurants all without the traffic hassles.

**Radiology**—Exceptional opportunity to join our Radiology Department. Brand new, state-of-the-art volume acquisition multi-detector, spiral CT scanner coming on line at the Clinic in March necessitates expanding this well established department. This opportunity also includes reading MRI from the region's newest open MRI. Desirable call schedule provides time to enjoy life in this scenic river valley community.

We offer a guaranteed first year salary with incentive pay plan. Our full range of benefits includes a generous retirement plan and liberal time-off policy.

**For more information call Dr. Byron C. McGregor, Medical Director at 507-389-8548 or Dennis Davito, Director Physician Recruitment, 507-389-8654 or send CV.**

Mankato Clinic
1230 East Main Street
Mankato, MN 56002-8674

May 12 **16th Annual Heart Conference** St. Mary's/Duluth Clinic Health System; Duluth Entertainment Convention Center, Duluth, MN. CONTACT: Diane Torvick, 400 East Third Street, Maildrop 5AV2ME, Duluth, MN 55805; 218/786-3838.

May 12 **Burn Conference** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Marilyn Horstman, HealthPartners, Continuing Medical Education, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.

May 12 **Minnesota Orthopaedic Society Annual Meeting** Minnesota Medical Association in joint sponsorship with Minnesota Orthopaedic Society; Minneapolis Convention Center, Minneapolis, MN. CONTACT: Colleen Jensen, Minnesota Orthopaedic Society, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/362-3737.

May 19 **Ethics and the Patient Experience in Clinical Research** Institute for Research and Education HealthSystem Minnesota; Park Nicollet Clinic, Naegele Auditorium, St. Louis Park, MN. CONTACT: Amie Reynolds, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN, 55416; 612/993-3538.

May 19 **Biological, Chemical, and Nuclear Terrorism** Hennepin County Medical Center and Minnesota Department of Health, Sheraton Inn Airport, Bloomington, MN. CONTACT: Carl Hornfeldt, Hennepin County Medical Center, Continuing Medical Education, 701 Park Avenue, Mail Code 861B, Minneapolis, MN 55415-1829; 612/347-2108.

May 19-21 **Sixth International Symposium on MPS and Related Diseases** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

May 22-26 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

## JUNE 2000

June 2 **Seventh Annual Spring Sports Medicine Symposium** Red River Valley Sports Medicine; Ramada Plaza Suites, Fargo, ND. CONTACT: Don Bruenjes, 2301 South 25th Street, Fargo, ND 58103; 701/280-2212.

June 2-3 **North Central Neonatology Issues Conference** University of Minnesota; Osthoff Resort, Elkhart Lake, WI. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.




*ALEXANDRIA CLINIC, P. A.*

The Alexandria Clinic, P.A., is a 32-physician multi-specialty group currently recruiting additional physicians in the following specialties:

ENT

GENERAL SURGERY

OPHTHALMOLOGY

First-year salary guarantee with production bonus, second-year partnership. Excellent contract benefits. If interested in joining a young, growing organization located in beautiful lakes area community, please contact:

Administrator
Alexandria Clinic, P.A.
610 30th Ave. W., Alexandria, MN 56308
320•763•5123
email: admin@alexclinic.com

Check out our website at www.alexclinic.com

***Dermatology, General Surgery, Internal Medicine, Otolaryngology and Pediatrics***

There are immediate openings at Brainerd Medical Center for the following specialties: Dermatology, General Surgery, Internal Medicine, Otolaryngology, and Pediatrics.

Brainerd Medical Center, P.A.

- 40-Physician independent multi-specialty group
- Located in a primary service area of 50,000 people
- Almost 100% fee-for-service
- Excellent fringe benefits
- Competitive compensation
- Exceptional services available at 162-bed local hospital, St. Joseph's Medical Center

Brainerd, Minnesota

- Surrounded by the premier lakes of Minnesota
- Located in central Minnesota less than 2 ½ hours from the Twin Cities, Duluth and Fargo
- Large, very progressive school district
- Great community for families

Call collect to Administrator:
Curt Nielson
(218) 828-7105 or (218) 829-4901
2024 South 6th Street
Brainerd, MN 56401
www.brainerdclinic.com

# *Physician Opportunities and Miscellaneous Listings*

*Classified rates are $2.50 a word (300-word maximum). Minimum monthly charge is $50; with box number $5 additional. Ads will not be accepted by phone. (Effective January 2000, the rates will be $2.50 a word for all new ads.)*

- Placement of ads must be made six weeks before the date of publication, e.g., April 15 for June ad. Please send ad requests to *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; or by fax, 612/378-3875; or e-mail, mm@mnmed.org
- The publisher reserves the right to decline or withdraw advertisements. The publisher is not responsible for clerical or typographical errors and is not permitted to divulge the identity of advertisers who have replies sent to box numbers.
- Cancellation of ads must be made by the first of the month preceding month of issue.

---

**South Minneapolis:** Community clinic opportunity, family practice–medical director position. Please call Bill at 612/821-2800. 3-4/00

---

**Urgent Care Physicians:** Independent group seeking part/full-time physicians to staff our urgent care facilities in Bloomington, Burnsville, Edina, and Lakeville. Contact the director of support services, 612/985-8931, or send inquiries to Quello Clinic Ltd., 7801 East Bush Lake Road, Suite 300, Bloomington, MN 55439. (*6/98-R)

---

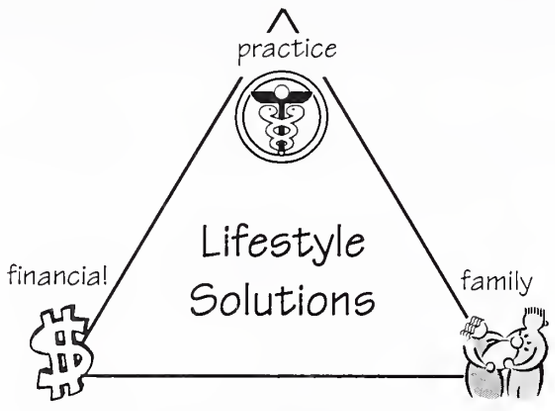
**Family Physicians:** Independent, well-established suburban FP group seeking part/full-time FPs who like doing OB and full FP services. Clinics in Bloomington, Burnsville, Edina, Eden Prairie, Lakeville, and Savage. Excellent call schedule. Contact: Medical Director at 612/985-8922 or write Quello Clinic Ltd., 7801 East Bush Lake Road, Suite 300, Bloomington, MN 55439. (*7/98-R)

---

**Fairview Health Services:** Practice opportunities in urban, suburban, and rural locations. Moonlighting opportunities also available. Please contact Fairview Physician Recruitment and Retention at 612/672-2288, 800/842-6469, fax: 612/672-2986, e-mail: recruit1@fairview.org or visit our Web site at www.fairview.org/recruitment. (1/00-R)

---


P R O V I D I N G




SOLUTIONS

• Emergency Medicine • Locum Tenens

ACUTE CARE, INC.

For more information, please call
**800.729.7813 or 515.964.2772**
e-mail address: jeffw@acutecare.com
home page: http://www.acutecare.com



ASPEN Medical Group

Aspen Medical Group is a 160+ provider multispecialty group with 9 clinics located throughout the Minneapolis / St. Paul metro area. We are currently seeking BE/BC physicians for the following specialties:

*Dermatology*
*Hospitalist*
*Internal Medicine*
*Urgent Care*

Aspen Medical Group is governed by its own physicians and health care providers. Guaranteed base salary available for the first two years. Competitive benefits package.

For further information, please contact:

Nancy Borgstrom, Provider Services Coordinator
1020 Bandana Boulevard West
Saint Paul, MN 55108
phone 651-641-7081 • fax 651-641-7151
e-mail nborgstr@aspenmed.org

EOE. No J-1 opportunities available.

**Olmsted Medical Center** is seeking BC/BE physicians in family medicine, emergency medicine, and dermatology to join our 75-physician multispecialty group. Great opportunity for well-trained physicians to join a family-friendly group in a dynamic, progressive practice. In addition to its main office and hospital in Rochester, the Olmsted Medical Center system includes 11 branch office locations in southeastern Minnesota. Excellent salary and benefits, including health benefits, malpractice, spending accounts, educational funds, profit sharing, 401(k)/403(b), and relocation assistance. Send CV to Lois Till-Tarara, Olmsted Medical Center, 1650 Fourth Street SE, Rochester, MN 55904; 507/287-2430. Fax: 507/285-8973. (*3/99-R)

---

**Falls Medical Search Seeks Physicians** for practice opportunities locally and nationally. To explore new practice options confidentially, send your CV or call Pat Falls, Falls Medical Search, 34 Forest Dale Road, Minneapolis, MN 55410; 612/922-0207 or 800/383-8916. (*5/92-R)

---

**Receivables Financing:** Truth is ... physicians face a tremendous financial burden—delayed payments from third-party payors. We have a program that lets you use your receivables—income you've already earned—in the time frame that best suits your needs. Don't let your receivables keep you waiting. Contact us today. Kaufman Medical Funding, 612/470-7900. (4/00-R)

---

**CAMDEN PHYSICIANS, LTD.**

**PRACTICE OPPORTUNITY FOR FAMILY PHYSICIANS AT 3 SITES IN NORTHWEST METRO AREA:**

CAMDEN OFFICE
4209 Webber Pkwy.
Mpls., MN 55412

FOUR SEASONS
9750 Rockford Rd.
Plymouth, MN 55442

GROVE SQUARE
13800 - 83rd Way
Maple Grove, MN 55369

Camden Physicians, Ltd., is a growing, independent, physician-owned family practice single specialty group. A competitive salary with excellent benefits and partnership opportunities are offered.

Please contact or send CV to:

William Youmans, M.D. (612-522-6601)
and/or
Edwin A. Olson, Administrator (612-559-0092)

**CAMDEN PHYSICIANS, LTD.**
**9800 ROCKFORD ROAD, SUITE 100**
**PLYMOUTH, MN 55442**
**FAX: 612-559-9404**

Camden PHYSICIANS LTD.

---

# Dedicated



. . . to improving the health of our members and our community. That's HealthPartners' mission, and a quality we look for in the physicians we hire to care for our patients. We're a Minnesota-based, not-for-profit healthcare organization serving over 300,000 members throughout the Minneapolis/St. Paul metropolitan area.

**NEUROLOGISTS**

HealthPartners Department of Neurology is seeking energetic, full-time clinical Neurologists to join their growing group. Candidates should be BE/BC Neurologists preferably with fellowship training. The practice is wide range but special interests in headache, clinical neurophysiology, stroke, and/or movement disorders are ideal. The practice serves a diverse population and we are affiliated with the University of Minnesota providing in-hospital rotation for trainees at Regions Hospital. Research interests are encouraged and supported.

HealthPartners is one of the largest healthcare organizations in the Midwest. We offer an excellent salary, competitive benefits and a challenging work environment. For consideration, please send your CV to: HealthPartners, Physician Services, Attn: Lori Fake, P.O. Box 1309, Minneapolis, MN 55440 or fax your CV to (952) 883-5395. For more information, call: (952) 883-5337 or (800) 472-4695 or email: lori.m.fake@healthpartners.com. *EO/AA Employer.*

HealthPartners®
*Medical Group & Clinics*

*HealthPartners' mission is to improve the health of our members and our community*

**BC/BE Internist:** Outstanding opportunity for well-trained individual interested in balancing personal values and professional endeavors. Seeking a seventh BC/BE general internist to join a 37-physician multispecialty group. Visit www.lrhc.org. Excellent salary/benefits package includes guaranteed salary the first year with full partnership after one year. For confidential information on this opportunity, contact David T. Bjork, M.D., Bruce E. Money, M.D., or Jim Wilkus, administrator, 615 South Mill Street, Fergus Falls, MN 56537, 218/739-2221. EEO/AA. 4-6/00

---

**MDsearch** assists medical groups and hospitals in their recruiting efforts. For confidential information on opportunities in the Upper Midwest, send CV and/or call collect Mary Jo Cordes, MDsearch, PO Box 21507, St. Paul, MN 55121; 651/454-7291. Fax: 651/454-7277. (2/93-R)

---

**Fergus Falls Medical Group, P.A.:** The Fergus Falls Medical Group is expanding its 37-physician multispecialty clinic and is seeking physicians in the following specialties: dermatology, family practice, internal medicine, ophthalmology, optometry, orthopedics, pediatrics, and urology. Excellent salary/benefits package includes guaranteed salary the first year with full partnership after one year. For confidential information on this opportunity, contact David T. Bjork, M.D., or Jim Wilkus, administrator, 615 South Mill Street, Fergus Falls, MN 56537, 800/247-1066. EEO/AA. 4-6/00

---

**Family Physician:** Independent well-established Minneapolis clinic with a practice of 7,000+ active patients seeks full-time Minnesota-licensed M.D. Excellent salary/benefits package includes guaranteed salary the first year. For confidential information on this opportunity send CV to Office Manager, Family Clinic, 1004 East Franklin Avenue, Minneapolis, MN 55404. 1-4/00

---

**Anesthesiologist–Minnesota:** Established anesthesia group has openings in its existing group practice at hospital sites in Brainerd and Bemidji, Minnesota. We offer full-time or flexible part-time positions with a competitive salary and benefits package. All candidates should be either BE or BC. Direct all inquiries to Thomas Yue, M.D., Regional Anesthesia Services P.A., 15612 Highway 7, Suite 243, Minnetonka, MN 55345; phone 612/932-0998 or fax 612/932-7122. (10/99-R)

---

**Electronic claims processing, reimbursement specialists, prompt payments** from insurance companies in just 10 to 21 days, unaccepted claims rate down to 3% or less. For information call I.F. Data Services at 218/286-5508, e-mail: richard@northwinds.nedt. 2-5/00

---

**Iowa:** Family practice, hematology/oncology, hospitalist, obstetrics/gynecology, and rheumatology. Contact: Jerry Hess, Mercy Medical Center-North Iowa, 1000 4th Street SW, Mason City, IA 50401. Phone 888/877-5551, fax 515/422-6388 or e-mail Hess@mercyhealth.com. 3-5/00

---



*Altru*
*Health System*

**Allergy**
**Cardiology**
**Critical Care**
**Dermatology**
**Diagnostic Radiology**
**Emergency Medicine**
**Family Practice**
**Gastroenterology**
**Geriatrics**
**General Surgery**
**Hospitalist**
**Internal Medicine**
**Medical Oncology**
**Neurology**
**Pediatrics**
**Physiatry**
**Psychiatry**
**Radiation Oncology**
**Rheumatology**
**Urology**

Integrated health system of 180 physicians located in Grand Forks, North Dakota is seeking BC/BE physicians in the specialties listed to the left.

Altru Hospital is a 277-bed hospital serving a 22 county area covering northeast North Dakota and northwest Minnesota with a referral area of 250,000. The University of North Dakota School of Medicine offers teaching opportunities.

Primary care opportunities are available in North Dakota and Minnesota communities with populations ranging from 1,200 to 65,000. Competitive salary and excellent benefits package.

Send curriculum vitae to Jean Keller, Altru Clinic Physician Recruiting, PO. Box 6003, Grand Forks, ND 58206 or fax to 701-780-6641. Telephone: 701-780-6596. E-mail: Jkeller@altru.org. Website: www.altru.org.

---

# Emergency Medicine Opportunities

**Emergency Practice Associates** provides quality emergency physician services. Our physicians work as independent contractors in a growth-oriented, physician-supported environment.

***full time opportunities***

| | |
|---|---|
| *GRAND RAPIDS, MN* | **Itasca Medical Center**<br>Medical Director and Staff Physician |
| *HIBBING, MN* | **University Medical Center–Mesabi**<br>Staff Physician |
| *LITTLE FALLS, MN* | **St. Gabriel's Hospital**<br>Medical Director and Staff Physician |
| *NEW ULM, MN* | **New Ulm Medical Center**<br>Medical Director and Staff Physician |

***part time opportunities***

| | |
|---|---|
| *AITKIN, MN* | **Riverwood Health Care Center** |
| *CROSBY, MN* | **Cuyuna Regional Medical Center** |
| *ST. PETER, MN* | **Community Hospital & Health Center** |

EMERGENCY PRACTICE ASSOCIATES
BOX 1260
WATERLOO, IA 50704
FAX: 319-236-3644

**Call the recruiting specialist today at 1-800-458-5003**
www.epamidwest.com

# *Minnesota Medicine*

AN EXCELLENT ADVERTISING INVESTMENT

Target marketing pays real dividends with your space advertising in ***Minnesota Medicine,*** the official journal of the Minnesota Medical Association.

Delivered directly to offices, hospitals, and clinics, ***Minnesota Medicine*** reaches your key clients and prospects in their business setting.

*For complete advertising information contact:*

Michele Holzwarth
Minnesota Medicine
3433 Broadway Street NE, Suite 300
Minneapolis, Minnesota 55413
612/623-2880
800/DIAL-MMA (342-5662)

***UNIVERSITY OF MINNESOTA DULUTH • SCHOOL OF MEDICINE***

***DEPARTMENT OF FAMILY MEDICINE***

We are seeking to fill one to two 20% - 75% non-tenured, faculty (assistant professor) positions.

Primary responsibilities include program development and coordination of ongoing courses, case writing, coordinating clinical topics with other disciplines and evaluating students. Direct teaching involves extensive small group facilitation, classroom lecturing and informally mentoring medical students. A full description is on the Web: penguin.d.umn.edu/dr

***Qualifications:*** Applicants must be graduates of a U.S. or Canadian training program with an MD or DO degree, board eligible in Family Medicine or other primary care specialty. Teaching experience is desired. Candidates should be willing to participate in part-time clinical practice.

***Salary/Benefits:*** Based upon experience and % time appt.

***Term of Contract:*** Non-tenured, temporary, annually renewable.

***Contact:*** Please submit vitae, 3 references and letter of intent to:

**Jeff Adams MD**
**Family Medicine Search Committee**
**UMD School of Medicine**
**10 University Drive, Duluth MN 55812**
**Phone: 218/726-7916 or FAX: 218/726-7699**
**E-mail:** jadams2@d.umn.edu

THE UNIVERSITY OF MINNESOTA IS AN EQUAL OPPORTUNITY EDUCATOR AND EMPLOYER

## Minnesota Opportunities

Delacore Resources, also known as *"The Minnesota Recruiter,"* has opportunities in Minnesota for the following types of physicians:

- **Dermatology**
- **Emergency Medicine**
- **Family Practice**
- **General Surgery**
- **Internal Medicine**
- **OB/GYN**
- **Orthopedic Surgery**
- **Pediatrics**
- **Psychiatry**

A detailed practice profile is available, or visit our website at **www.mnrecruiter.com**

*Contact The Minnesota Recruiter confidentially at*

**Delacore Resources**
**1-800-967-2711**
**FAX (320) 587-7252**
**delacore@hutchtel.net**

## Blaine Medical Center

is seeking BC/BE Family Practitioner to join four Family Practitioners in a growing practice located in northern tier suburb of the Twin Cities.

Excellent salary and benefit package. Shareholder potential after one year.

Blaine Medical Center is affiliated with Multicare Associates, an independent physician owned practice with locations in Blaine, Fridley, and Roseville.

CONTACT:
**Steve Bentz, M.D. at 612-785-8544 or Jeannine Schlottman at 612-785-3338.**

www.multicare-assoc.com

## Chief Medical Officer

PreferredOne, a leading Minneapolis-based managed care organization serving the Upper Midwest and operating HMO, TPA, and PPO products, is seeking a Chief Medical Officer to lead the development of the medical management and quality management functions in a consumer-driven environment. **Requirements:** Board certification with a minimum of five years clinical practice experience, five-plus years progressive management experience in a health insurance/managed care entity, excellent communication, and leadership skills. **Compensation:** Competitive base salary, bonus potential, and full benefit package.

Please send cover letter and resume to:
Nancy Hayes, Human Resources
PreferredOne
6105 Golden Hills Drive,
Minneapolis, MN 55416
or email: nhayes@preferredone.com

**Pediatrician:** Full- or part-time. Private pediatric group in southwest metro area. Send resume to: Dr. Vicki Thomson, 7 Woodland Road, Edina, MN 55424. 3-5/00

---

**OB/Gyn, General Surgeon, and Ophthalmologist:** BC/BE to join progressive 37-physician multispecialty group practice. Rural setting with metropolitian style, 25 miles from Minneapolis. Group has excellent reputation and large geographical referral area. Recently expanded facility is adjacent to newly remodeled 110-bed hospital. Comprehensive benefit package with excellent remuneration. Interested physicians should contact Joseph E. Van Kirk, M.D., Lakeview Clinic, Ltd. 424 State Highway 5 West, Waconia, MN 55387, 612/442-4461. AA/EOE. 3-5/00

---

**Clinical Space Available for Subleasing:** New beautifully finished medical space in Phase 2 of the WestHealth Medical Building. Building amenities include free parking, on-site laboratory, and pharmacy. Clinic space includes six examination rooms and on-site x-ray. For more information, please call 612/383-0770. 2-5/00

---

APRIL 2000 INDEX TO ADVERTISERS


Acute Care Inc. ..... 60
Advanced Imaging ..... 3
Affiliated Community Medical Centers ..... 58
Air Force Health Professionals ..... 64
Alexandria Clinic, P.A. ..... 59
Allina ..... 54
Allina Continuing Education ..... 57
Altru Health System ..... 62
American Diabetes Association ..... 5
Aspen Medical Group ..... 60
Brainerd Medical Center ..... 56, 59
Camden Physicians ..... 61
CentraCare Clinic ..... 46
Delacore Resources ..... 63
Emergency Practice Associates ..... 62
First Call Physicians, Inc. ..... 38
Global Holidays ..... 11
HealthEast Bethesda Lutheran Hospital ..... Cover 2
HealthPartners Ludlow ..... 61
Jordan Chiropractic Center ..... 19
Kundel & Streitz, P.A. ..... 56
Mankato Clinic ..... 58
Medical Protective Co. ..... 17
MeritCare ..... 40
Midwest Medical Insurance Co. ..... 14, 53
MMA Membership ..... 25
MMBR ..... 29, 32, 55
Multicare Associates of the Twin Cities ..... 19, 63
North Memorial Health Care ..... 5
Owatonna Clinic-Mayo Health Systems ..... 64
Preferred One ..... 63
ProMedicus System ..... 5
Regions Hospital ..... Cover 4
Riverwood Healthcare Center ..... 11
St. Thomas University Medical Group ..... 19
University of Minnesota-Continuing Medical Edu. ..... Cover 3
University of Minnesota-Duluth ..... 63
Weisman Art Museum ..... 47
Winona Clinic Ltd. ..... 40



Owatonna — A place to practice. A place to live.

Owatonna Clinic — part of Mayo Health System — is expanding its healthcare team in orthopedic surgery, emergency medicine, family medicine and internal medicine.

Learn more about our practice and our community. Owatonna offers:
- Excellent schools
- Growing business community
- Active arts center
- Central location

**Contact David Berg, Owatonna Clinic, at 507-455-4441.**

Owatonna Clinic
*Mayo Health System*

**Air Force Healthcare. Good Pay. Professional Respect.**

**Why Do You Think We Say "Aim High"?**

Experience the best of everything. Best facilities. Best benefits. Outstanding opportunities for travel, 30 days vacation with pay, training and advancement.

**For an information packet call**
**1-800-423-USAF**
**or visit www.airforce.com.**

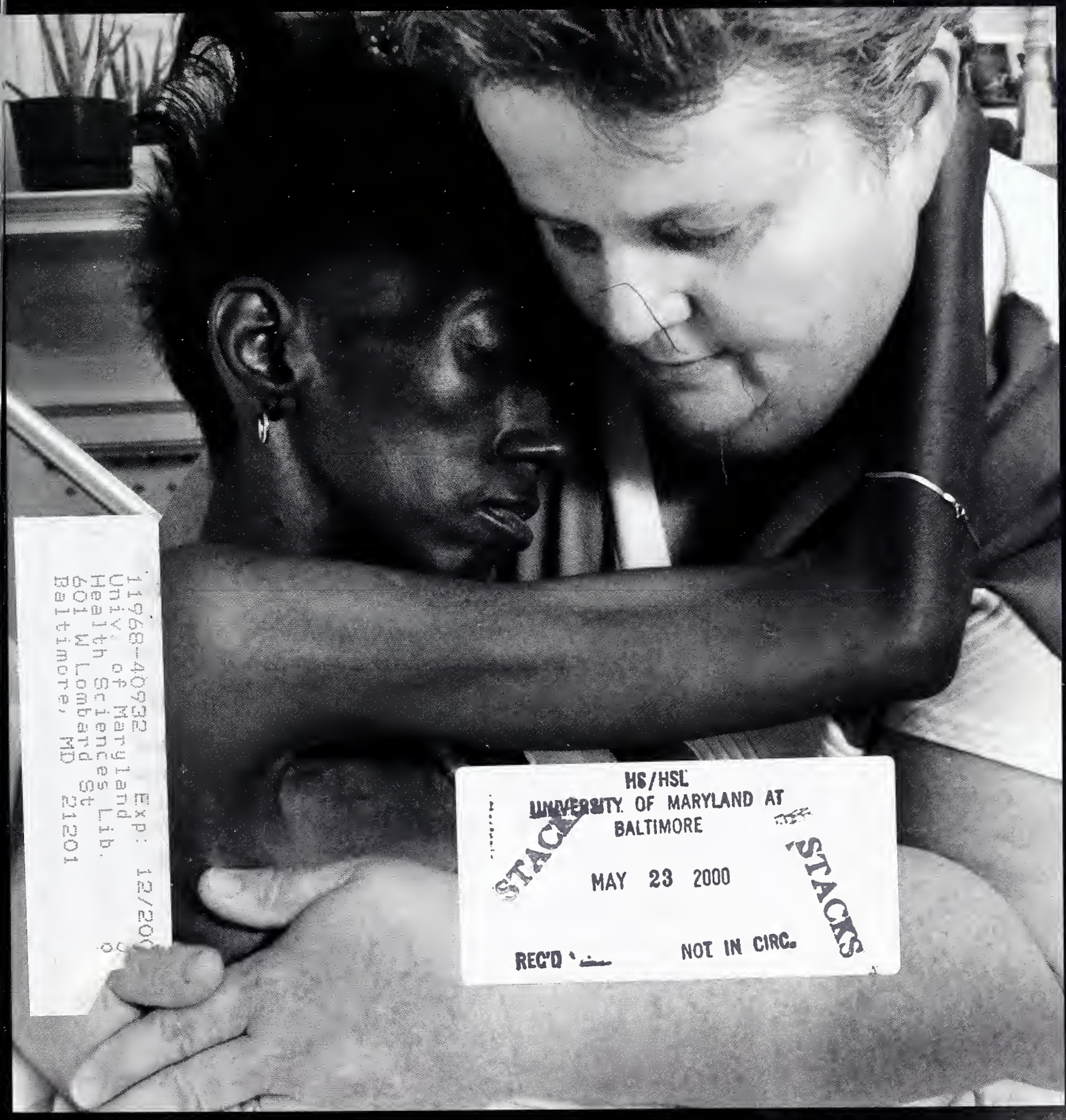
You'll see why we say, "Aim High."

AIM HIGH
AIR FORCE
HEALTH PROFESSIONS

SPECIAL ISSUE: END-OF-LIFE CARE

# Minnesota Medicine

A JOURNAL OF CLINICAL AND HEALTH AFFAIRS



11968-40932 Exp: 12/20
Univ. of Maryland
Health Sciences Lib.
601 W Lombard St
Baltimore, MD 21201

HS/HSL
UNIVERSITY OF MARYLAND AT
BALTIMORE
STACKS
MAY 23 2000
REC'D
NOT IN CIRC.
STACKS

## HOSPICE:
## A photographic inquiry

MAY 2000

# Special Care



## for Special Patients

Recovery from an illness, accident or injury requires experienced medical professionals, state of the art equipment and technologically advanced therapies. It also requires a comforting, nurturing staff, a "home away from home" environment and family involvement in patient care. Our hospital is dedicated to the recovery of critically ill patients. And we're with you every step of the way, with cost-effective care.

Vencor Hospital • Minneapolis is a specialty hospital for the critically ill/medically complex patient that provides a full spectrum of intensive and acute care for patients suffering from catastrophic illness or acute levels chronic diseases. Patients are referred to Vencor Hospital • Minneapolis because the severity and complexity of their medical condition precludes them from being accepted into a rehabilitation facility, subacute program or skilled nursing home. Vencor Hospital • Minneapolis also has an eight (8) bed Intensive Care Unit.

Admissions to Vencor Hospital • Minneapolis may be recommended by physicians, acute care hospitals, rehabilitation facilities, managed care providers, case management companies, or by the patient's family. In all cases, tours are encouraged.

To refer a patient to Vencor Hospital • Minneapolis, simply call the Referral Line at (612) 522 • 1899. Upon receiving the referral, a Vencor Hospital • Minneapolis Clinical Case Manager will evaluate the patient within four hours. The referring agency will be notified within 24 hours regarding the disposition decision.

Vencor

### Our Patient Care Services

Ventilator Weaning
Tracheostomy with Respiratory Needs
Cardiac Related Disorders
Neuromuscular/Neurovascular Disease
Methicillin-Resistant Staphaureus (MRSA)
Management of Complex Orthopedic Patients
Extensive Wound Care Complications
Multi-System/Organ Failure
Respiratory Failure
Dysphagia Management
Chest Trauma
Pulmonary Rehabilitation
Extensive Post-Operative Complications
Multiple Intravenous/Antibiotic Therapy
Pre-and Post-Operative Organ Tansplant Care
Total Parenteral Nutrition (TPN)
Vancomycin Resistant Entercoccus (VRE)

### Funding

Vencor Hospital • Minneapolis provides a full spectrum of quality care and aggressive therapies at an overall cost substantially less than traditional acute care hospitals. Reimbursement is accepted from the following:

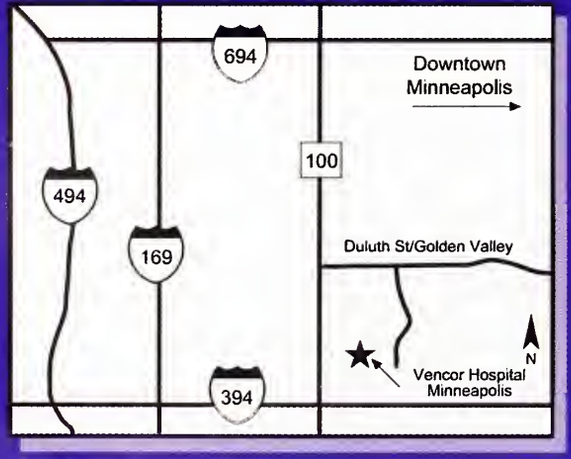
- Medicare (DRG Exempt)
- Medicaid
- Commercial Insurance
- Private or Self-Support
- Champus
- Managed Care

### Licensure/Accreditation

JCAHO
HCFA (Medicare Certification)
Acute Care Hospital (State of Minnesota)

### Location

Vencor Hospital • Minneapolis is conveniently located at 4101 Golden Valley Road in Minneapolis, Minnesota.




Vencor Hospital • Minneapolis
4101 Golden Valley Road Golden Valley, Minnesota 55422

# Minnesota Medicine

Published monthly by the Minnesota Medical Association



COVER

*"Sheila and Georgia" by Jack Radcliffe, courtesy of the Weisman Art Museum. Story, page 14.*

DEPARTMENTS

2 .....Editor's Note

33 .....MMA News & Views

65 .....CME in Minnesota

70 .....Classified Ads

75 .....Index to Advertisers

76 .....Just Write

BOOK REVIEW

**Dying in America**, a review by Charles R. Meyer, M.D., page 63.

*Peter Filene's "In the Arms of Others" traces the last two centuries' of medical advances, court decisions, and technologies that have shaped how Americans think about and care for dying patients.*

FACE TO FACE

**6** **From Cure to Comfort** ..... Katie Colón
*Family physician and geriatrician Mark Leenay, M.D., helps dying patients make the most of the time they have left.*

PERSPECTIVES

**10** **Telling Tales** ..... The Reverend Gretchen Thompson
*The stories we tell about ourselves create meaning from suffering.*

COVER STORY

**14** **Moving Pictures** ..... Carmen Peota
*The Weisman Art Museum exhibit "Hospice: A Photographic Inquiry" provides a glimpse of care at life's end.*

FEATURE STORY

**22** **Soul Music:**
**Enhancing End-of-Life Care with Music Therapy** ..... Jodi Ohlsen Read
*Music soothes the souls and bodies of the sick and dying.*

SPECIAL REPORT

**26** **Learning to Be Present to Dying Patients** ..... Martin Kohn, Ph.D.
*From ancient woodcuts to modern ad images, art can be a powerful tool for teaching medical students about death and end-of-life care.*

**43** **The Minnesota Partnership to Improve End-of-Life Care** ..... Edward Ratner, M.D., and Linda Norlander, R.N., M.S.
*Minnesota health systems collaborate to improve end-of-life care.*

**45** **Tailoring the Message** .....Judy Allen, M.A., and Susan A. Brock, Ph.D.
*In physician-patient communication, patients' personal styles call for different approaches, especially when the news is bad.*

COMMENTARIES

**50** **In Search of a Good Death:**
**The Spiritual Dimension** ..... Gregory A. Plotnikoff, M.D., M.T.S.
*When a patient faces a life-threatening illness, physicians should be ready to shift the focus of care from body to soul.*

**52** **Palliative Care in Minnesota** ..... Wayne Thalhuber, M.D.
*Medicine is turning to palliative care to reach more patients at the end of life.*

**55** **Grief and the Family** ..... Ben Wolfe, M.Ed., L.I.C.S.W.
*Health care teams help families find balance as they cope with loss.*

MEDICINE LAW & POLICY

**57** **Prescribing Opiates for Pain Relief** ..... Phebe Saunders Haugen, J.D.
*Physicians are now required to ensure pain control for their patients. Here's how to avoid legal pitfalls while practicing good medicine.*

# Letting Go

There's a lot of death in this issue. Look at the topics—palliative medicine, hospice, breaking bad news, grief, end of life. Grim? Hopeless? Not really. Medical providers can offer art, music, comfort, hope, and compassion. This month's *Minnesota Medicine* covers what may be physicians' toughest and most important job—the care of the dying.



*"Those of us in medicine must embrace death."*

Doctors have always had a love/hate relationship with death. We battle it. Clad in our scrubs, we rush into hospital and operating rooms to save lives. In our heroic myth, we don the armor of medical science and marshal the weapons of technology, struggling against contagion and cancer like Camus' Dr. Rieux against the plague. Yet, like Rieux, we know that our fight is Sisyphean—a burdensome task of winning small battles but always losing the war. For, as the cliché reminds us, no one gets out of this life alive. So those of us in medicine must embrace death. We see it some days in the flesh. We see it every day in the fears of our patients. And it makes us uncomfortable. Some of us deny it; some of us ignore it; few of us know quite how to handle it.

American society, too, has had an ambivalence about death. Nineteenth-century Americans literally lived with death: Children died frequently, adults died young, and everybody died at home. The 20th century saw the beginning of cultural denial of death: Eternal youth was enshrined, hospital death was standard, and elaborate funerals gift-wrapped the end of life. In the 21st century, Americans want to orchestrate the details of their own deaths, according to a recent *Wall Street Journal* article. Home Funeral Ministry, run by "death consultant" Jerri Lyons, "helps people achieve the kind of death and funeral they envision" by planning all the details of the events leading to death. Boomers reveling in the good life are seeking experts to help them achieve a good death. The advent of consultants like Lyons, the article suggests, is a response to the perceived failure of "the funeral industry, organized religion, and the medical establishment ... to provide spiritual, fulfilling, or intimate deaths."

If society is ambivalent about death, patients are unambivalent in their desire to avoid death. They want their doctors to prevent, diagnose, or treat disease that might lead to death. Like doctors, they want to put off talking about death as long as possible. And when death is inevitable, they arrive at acceptance gradually, through Kübler-Ross's stages or Emily Dickinson's poetic path, "First—chill—then stupor—then letting go."

So what can those of us in medicine, armed with technological tools and scientific minds, do for patients and their families immersed in such a culture? We can arm ourselves with different weapons. We can train ourselves as gentle, compassionate guides for patients at the end of life. We can try to make our patients' final days less a living death and more a fulfilling last chapter of life.

In his lyrical 1997 book "Signs of Life: a Memoir of Dying and Discovery," Tim Brookes describes facing his mother's death, portraying his journey from anger to acceptance as a result of his experience with hospice: "[A]fter one has been around hospice for a while, a certain spirit of acceptance rubs off: People are only human, dying will never be perfect, and all of us, at any age, can expect a certain amount of distress." He found "grief ... in its own rigorous, overwhelming way, wonderful."

The end of life is not easy for patient or provider, but it is part of life. The physician's job is to treat pain, model acceptance, and acknowledge grief to make dying as "good" as possible for our patients and their loved ones.

*–Charles R. Meyer, M.D., Editor-in-Chief*

# Helping make MRI diagnostic affordable for everyone.

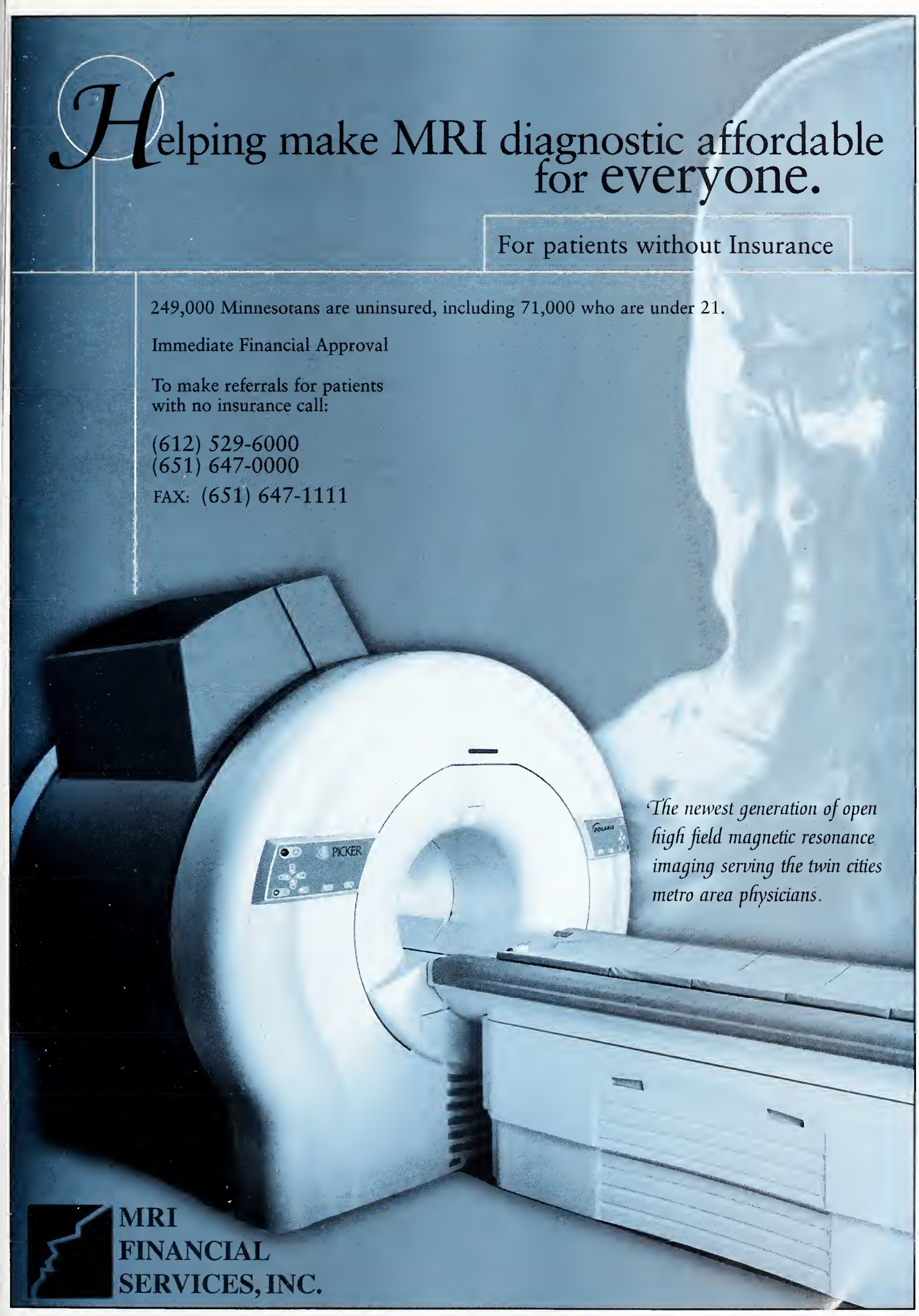
## For patients without Insurance

249,000 Minnesotans are uninsured, including 71,000 who are under 21.

Immediate Financial Approval

To make referrals for patients with no insurance call:

(612) 529-6000
(651) 647-0000
FAX: (651) 647-1111




*The newest generation of open high field magnetic resonance imaging serving the twin cities metro area physicians.*

**MRI FINANCIAL SERVICES, INC.**

# *Minnesota Medicine*

Published monthly by the Minnesota Medical Association

*Owner and Publisher*
Minnesota Medical Association

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Managing Editor*
Meredith McNab

*Associate Editors*
Margaret Parker
Carmen Peota

*Publications Assistant*
Katie Leonard

*MMA News & Views Editor*
Lorrie Holmgren

*MMA News & Views Writer*
Cynthia Lehman

*Art Director*
Sarah Kirkwood

*Graphic Designers*
Sarah Kirkwood
Katie Leonard

Send manuscripts, subscriptions, and other material for consideration to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/378-1875. E-mail: mm@mnmed.org The editors reserve the right to reject editorial, scientific, or advertising material submitted for publication in *Minnesota Medicine.* The views expressed in this journal do not necessarily represent those of the Minnesota Medical Association, its editors, or any of its constituents. Annual subscription–$40. Single copies–$3.50. Canadian–$70. Foreign–$70.

*To Advertise:* Contact Michele Holzwarth, *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/623-2880 or 800/DIAL MMA (342-5662).



**Advisory Committee**

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Advisory Committee*
Charles R. Meyer, M.D.
Edmund C. Burke, M.D.
Richard C. Lussky, M.D.
Lynne Ogawa, M.D.
Paul S. Sanders, M.D.
Leif I. Solberg, M.D.
Barbara P. Yawn, M.D.
Meredith McNab, staff

*Editors Emeritus*
Edmund C. Burke, M.D. 1991-1993

Richard L. Reece, M.D. 1975-1990

Reuben Berman, M.D. 1971-1974

Carl O. Rice, M.D. 1961-1970



**Copyright & Post Office Entry**

*Minnesota Medicine* (ISSN 0026-556X) is published on the fifth of each month by the Minnesota Medical Association, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761, copyright 2000. Permission to reproduce editorial material in this magazine must be obtained from *Minnesota Medicine*. Periodicals postage paid at Minneapolis, Minnesota, and at additional mailing offices. POSTMASTER, send address changes to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761. (USPS 3519000.)



MINNESOTA MEDICAL ASSOCIATION

**1999–2000 Officers**

*President*
John M. Van Etta, M.D.

*President-Elect*
Blanton Bessinger, M.D.

*Chair, Board of Trustees*
Robert K. Meiches, M.D.

*Vice President*
Kevin C. Fleming, M.D.

*Secretary*
David L. Estrin, M.D.

*Treasurer*
Noel R. Peterson, M.D.

*Speaker of the House*
Gary D. Hanovich, M.D.

*Vice Speaker of the House*
Rebecca Jean Hafner, M.D.

*Past President*
Judith F. Shank, M.D.

*Chief Executive Officer*
Paul S. Sanders, M.D.

**MMA Senior Staff**

*Director of Communications*
Lorrie Holmgren

*Chief Financial Officer*
George C. Lohmer Jr.

*Director of State and Federal Legislation*
David Renner

*Director of Health Law*
Christina F. Rich, J.D.

*Director of Health Economics and Policy Analysis*
Janet Silversmith

*Director of Executive Office*
Karen A. Tourdot

**Alliance**

*President*
Sandra Weissler

*President-Elect*
Diane Gayes

**Board of Trustees**

*N.W. District*
Jerry P. Rogers, M.D.

*N.E. District*
James L. Anderson, M.D.
Charles R. Helleloid, M.D.

*N. Central District*
James J. Dehen Jr., M.D.
Keith D. Larson, M.D.

*West Metro*
Lee Beecher, M.D.
Karen K. Dickson, M.D.
John W. Larsen, M.D.
Robert K. Meiches, M.D.
Henry T. Smith, M.D.

*East Metro*
Thomas Dunkel, M.D.
Joseph L. Rigatuso, M.D.

*S.W. District*
Terence P. Cahill, M.D.
Elton G. Wing, M.D.

*S.E. District*
Peter Amadio, M.D.
G. Richard Geier Jr., M.D.
Kimberly McKeon, M.D.

*Resident Member*
Andrew G. Moore, M.D.

*Medical Student*
Joel V. Oberstar

**AMA**

*AMA Delegates*
Robert D. Christensen, M.D.
Frank J. Indihar, M.D.
Carolyn J. McKay, M.D.
Lyle Munneke, M.D.
Audrey M. Nelson, M.D., *Chair*
Thomas L. Peyla, M.D.
Andrew J.K. Smith, M.D.

*AMA Alternates*
Raymond G. Christensen, M.D.
Kenneth W. Crabb, M.D.
Anthony C. Jaspers, M.D.
Paul C. Matson, M.D.
Sally Trippel, M.D.
John M. Van Etta, M.D.
Benjamin H. Whitten, M.D.



**MMA Address**

Minnesota Medical Association
3433 Broadway Street NE, Suite 300
Minneapolis, MN 55413-1761

Phone: 612/378-1875 or 800 DIAL MMA (342-5662)

Fax: 612/378-3875

E-mail: mma@mnmed.org

Web site: www.mnmed.org

# Ingenious



**What a bright idea.**

A company that houses an entire arsenal of services specifically for healthcare providers. MMIC is now your full service solution, offering you complete liability insurance services as well as employee benefits planning, expert healthcare information systems planning and implementation, even Internet services designed to meet your unique needs. But unlike the Trojan Horse, when you work with MMIC, there are no surprises, just superior services provided by industry experts. Midwest Medical Insurance Company, making your life a little simpler... isn't it about time.

*Call 1-800-328-5532 or visit us at www.midmedical.com*

20 Years of Excellence

MMIC

INSURANCE EMPLOYEE BENEFITS CONSULTING INTERNET SERVICES

# From Cure to Comfort

*Family physician and geriatrician Mark Leenay, M.D., believes his profession should do more to help dying patients make the most of the time they have left.*

Birth, death—and everything in between. It was the desire to see patients across life's spectrum that drew Mark Leenay, M.D., to family practice and, in 1990, to the Rum River Health Services physician group (now Fairview Northland Clinics) based in Princeton, Minnesota. Back then, however, he didn't exactly picture himself as a future champion of the end-of-life-care movement.

"I wasn't geriatric-certified, and it wasn't something I saw myself emphasizing in practice," he says now. But life has a way of leading people down roads they never thought they'd take. For Leenay, a native of St. Paul, the journey began two months after he arrived in Princeton, when his colleagues asked him if he would like to take over as medical director of Elim (nursing) Home in Milaca—a position that had been recently vacated. A self-described "guy who can never say no," Leenay accepted, his interest piqued by his nursing home care experience during his residency at Overlook Hospital in Summit, New Jersey. At the time, he says, the residency was unusual in requiring students to follow nursing home patients and to participate in hospice rounds and other aspects of end-of-life care.

*By Katie Colón*

Fast-forward a decade. Today, Leenay is a board-certified geriatrician and palliative medicine specialist and medical director of the Milaca home and two other facilities in Elk River and Princeton. In addition, he is medical director of both Fairview Hospice and Fairview Partners and is director of Palliative Medicine for Fairview Health Services.



PHOTOGRAPH BY JOHN NOLTNER

*Dr. Mark Leenay says pain control is now becoming a focus of care for all patients.*

## *Pain Control as a Priority*

When it comes to end-of-life care, Leenay believes his profession, and the health care system, could be doing a much better job. "These patients require appropriate and often aggressive therapies" says Leenay. "The difference is that the focus of care shifts from cure to reduction of suffering. If patients and families hear, 'There's nothing else we can do for you,' they fear abandonment. A better message would be, 'I want to give you the best care possible and help you find some meaning in your life in the time you have left.' "

Part of the difficulty is that our society believes some level of physical suffering is OK, says Leenay, who for the past 10 years has worked to improve the way care is delivered to dying patients. "There's also a consumer expectation that we can't control pain related to terminal illness ... and physicians are a part of that culture. The public seems to believe that patients are going to suffer, and that we can't relieve that suffering," he says. "But I've learned that virtually 100 percent of the time, we can relieve most of the physical pain and symptoms patients experience."

For Leenay, pain control is key to caring for terminally ill patients. "When someone is focusing all their energy on dealing with their pain, they don't have the psychological or spiritual energy to deal with the 'rest'—to deal with someone they haven't talked to in 10 years, or to make peace with the sister they are estranged from," he says.

Only in the last three to four years has the health care system begun to recognize that we don't do a good job with pain, he adds. And the profession has started to respond, says Leenay. "We've made some strides. We've identified pain as more than a symptom to diagnose underlying disease; it is now becoming a focus of care for all patients," he says, citing the development of pain centers and research on pain control.

## *What Can Be Done Right Now*

In July 1997, with Leenay as a co-leader, Fairview Health Services collaborated with Blue Cross/Blue Shield to become one of 48 participants in an Institute for Healthcare Improvement (IHI) initiative to improve end-of-life care. The goal was to identify and implement projects that would have an immediate impact on dying patients and their families. "[The institute] wanted to know, 'What can you do by next Tuesday, and what do you know you're not doing today that you can improve tomorrow?' "

In response, Fairview's team piloted and later implemented a systemwide advanced-care planning initiative. For every patient admitted, anywhere within Fairview, a surrogate decision maker—someone who can speak for the patient when the patient can no longer express his or her own wishes—is identified in

writing. Another initiative—a systemwide bereavement program—began in February of this year. Once this program is fully implemented, families of patients who die anywhere within the Fairview system will receive a letter and a follow-up call from a qualified staff person within a month of that death to see how the family is doing and connect them to community resources, if necessary.

The three Minnesota health systems that participated in the IHI initiative have since formed the Minnesota Partnership to Improve End-of-Life Care, securing more than $500,000 in grants, with $455,000 coming from the Robert Wood Johnson Foundation to help promote changes to public policy, investigate possible insurance reform, and develop educational opportunities. (See story, page 43.)

## *Overcoming the Barriers*

Research shows that 80 percent of people want to die at home, but more and more people—roughly 40 percent—are dying in nursing homes, says Leenay. Another 40 percent die in hospitals.

"It happens because we don't meet their needs at home," he says. "We have a health care system in which it's difficult to make house calls and where there are often minimal resources available to care for them at home."

Just getting patients with advanced illnesses into hospice care is a challenge because of the stringent payer criteria, he says. Two physicians must first certify that the patient will die within six months and that the patient no longer wishes to pursue curative therapy. With many noncancer conditions, such as end-stage heart failure, the time frame for death is difficult to predict, especially six months out, he says. Not only that, physicians are often reluctant to give patients and their families a bad prognosis. "Physicians often don't want to believe their patient is dying, and they subconsciously delay predicting death. And consciously, they want to tell patients the best news possible," Leenay says. For those reasons, hospice stays are getting shorter, and more than 60 percent of patients who die of prolonged illnesses are never enrolled.

To overcome these barriers, Leenay helped institute Fairview's Transitions and Life Choices (TLC) program in 1999. The goal is to identify patients in home care who are likely to die from their illness within one or two years, but who may still pursue curative therapy or are unwilling to be enrolled in a hospice program. Because of the two-year time frame, the TLC program also captures populations whose prognosis is often difficult to predict, such as those with end-stage heart failure.

Using the FairCare model that author Dan Tobin, M.D., describes in "Peaceful Dying" (Perseus Books, 1998), Transitions and Life Choices helps shift the goal of dying patients from cure to comfort, involving weekly team rounds and chaplain support. It's targeted at people with advanced illness who may not yet realize that their disease is going to kill them, Leenay says. "They are the ones with the greatest need in a lot of ways."

He points to the case of a 41-year-old mother with advanced metastatic cancer whose goal was to see her 7-month-old daughter walk down the aisle one day. Once the mother became eligible for the TLC program, the door opened for staff to begin discussing with her how she might achieve some of her goals, Leenay says. From those discussions came the idea of having her make a videotape for her daughter so that she could at least be present to her in that form. Two days after making the tape, the woman died. "[Making the tape] allowed her to have some closure," Leenay says.

Leenay's hope is to broaden TLC so that it's available throughout the system to patients with advanced illness. "We hope to be able to provide it to patients who are not homebound, but that will require insurance changes."

### *At a Glance*

**Mark Leenay, M.D.**

**Age:** 39

**Education:** 1982, B.S. in biology, Le Moyne College, Syracuse, New York.

1983, M.S. in psychology, University of Pennsylvania.

1987, M.D., Jefferson Medical College, Philadelphia.

**Family:** Wife, Tamara Leenay, organic chemist at St. Cloud University; children, Ryan, 9, and Jillian, 6.

**Hobbies:** Fishing, music, theater, water sports, and all outdoor recreational activities.

## *Educating Physicians*

Outside Fairview, Leenay has been focusing on improving physician education about end-of-life care. "The education system has not educated doctors in [end-of-life care] at all," Leenay says, noting that a 1994 study showed that only five of 126 medical schools had a required course on the subject. A recent accreditation standard requiring all medical schools to have some curriculum related to care of the dying has given Leenay hope that the tide is turning.

As a member of the Primary Care Education Committee developed at the University of Minnesota Medical School, Leenay, along with Mary Jo Kreitzer, R.N., Ph.D., and others, is helping weave end-of-life care instruction throughout the four-year curriculum.

Last year, the Minnesota Medical Association sponsored Leenay's attendance at an AMA train-the-trainer conference, where 240 physicians learned the new AMA curriculum: Educating Physicians about End-of-Life Care (EPEC). As part of his commitment to deliver the curriculum to fellow physicians in Minnesota, Leenay presented three of the course's 12 small-group modules during the MMA's Annual Meeting last year and will present the entire course in 2000. Module topics include advanced-care planning, communicating bad news, whole-patient assessment, physician-assisted suicide, medical futility, and the last hours of living.

## *Both Ends of Life*

The efforts of Leenay and his Fairview colleagues over the years have not gone unnoticed. In 1998, the American Association of Critical Care Nurses presented Fairview's IHI initiative team with an award for being the best interdisciplinary team in the country. Fairview is one of nine finalists for the American Hospital Association's Circle of Life Award, to be given this month.

Leenay still practices as a physician what he preaches as an administrator and change agent. "I still do OB and I still get to see both ends of the continuum," he says. "Just as with obstetrics, it's a privilege just to be present in the room of a dying patient. In a minority of cases, that presence can make a significant difference in dealing with that event. But at the end, with death, a lot of it's out of your control. And there's satisfaction just in knowing that you helped a person get there." MM

*Katie Colón is a freelance writer in West St. Paul, Minnesota.*

Altru
Health System

**Allergy**
**Cardiology**
**Critical Care**
**Dermatology**
**Diagnostic Radiology**
**Emergency Medicine**
**Family Practice**
**Gastroenterology**
**Geriatrics**
**General Surgery**
**Hospitalist**
**Internal Medicine**
**Medical Oncology**
**Neurology**
**Pediatrics**
**Physiatry**
**Psychiatry**
**Radiation Oncology**
**Rheumatology**
**Urology**

Integrated health system of 180 physicians located in Grand Forks, North Dakota is seeking BC/BE physicians in the listed specialties.

Altru Hospital is a 277-bed hospital serving a 22 county area covering northeast North Dakota and northwest Minnesota with a referral area of 250,000. The University of North Dakota School of Medicine offers teaching opportunities.

Primary care opportunities are available in North Dakota and Minnesota communities with populations ranging from 1,200 to 65,000. Competitive salary and excellent benefits package.

Send curriculum vitae to Jean Keller, Altru Clinic Physician Recruiting, PO. Box 6003, Grand Forks, ND 58206 or fax to 701-780-6641. Telephone: 701-780-6596. E-mail: jkeller@altru.org. Website: www.altru.org.

## *An EPEC Forum*

The Minnesota Medical Association, in conjunction with the Weisman Art Museum's exhibition "Hospice: A Photographic Inquiry," is sponsoring the one-day course Educating Physicians on End-of-life Care (EPEC).

The course will be held Wednesday, June 7, 8:30 a.m. to 2:30 p.m. at the Weisman Art Museum on the University of Minnesota Minneapolis campus.

EPEC is a nationwide AMA initiative with the goal of training physicians in end-of-life care. At the heart of the project is a standardized curriculum that helps attendees develop the skills to not only provide better care but also teach the EPEC curriculum to other physicians. The June 7 training includes lunch and a gallery tour.

For more information, contact the MMA at 800/342-5662.

# Telling Tales

*The stories we tell about ourselves create meaning from illness and suffering.*



By The Reverend Gretchen Thompson

More than the place we were born or the way we were raised, more than the color of our eyes, more than our work, wishes, or dreams, it is the stories we tell about ourselves that make up who we are. And the stories we tell are shaped from almost infinite possibility.

"I had a terrible childhood," a woman told me the other day. Surely, she was telling the truth. Just as surely, though, it was the incomplete truth. For she left out all the unterrible parts of that childhood, the parts that did not fit her story. Yet, what else was she to do? It is our gift as humans, and our need, to shape our own lives into stories or else drown in chaotic confusion. It is our nature to capture the ocean of experienced time in tin cups of narrative. That is the only way we can drink it.

Arthur W. Frank, a medical ethicist and professor of sociology at the University of Calgary, spent years conversing with people experiencing serious illness, listening in particular for the ways they shaped their life stories. He describes three narrative contours.

The first he calls restitution narrative. Its general shape is this: I was doing well, and then I ran into trouble. But eventually, everything came out all right.

This is the most common narrative in American culture, and probably the most beloved. It is the plot of almost every bestseller, television show, and movie. It is the narrative of the happy ending.

Frank recognizes it in stories such as these: My life was going along great until I noticed this lump in my breast. The treatment was painful but successful, and I've been in remission for a long time now.

Or: I fell asleep peacefully but woke up in raging pain. We called 911 and I was rushed to the hospital. It was appendicitis; they operated immediately and now I'm fine.

Restitution. Happy ending. The story implies that suffering may well come to us but cannot really overwhelm us.

In my hospice chaplaincy work, I speak almost daily with a woman whose husband of more than 50 years is dying. Each time we speak, she says to me, "Yesterday, I felt terrible. But today, thank goodness, I feel ever so much better."

I believe her. I understand that each of her days is overwhelming, a barrage of details that she feels she must shape into a story. She happens to shape each day into a little restitution narrative.

Frank identifies a second common story contour, the chaos narrative. Its general shape is this: I was doing well, and then I ran into trouble. I am now trapped in trouble, I cannot find a way out, and I am deeply terrified.

The chaos narrative is actually more a nonstory, for it has no real plot. Its teller circles round and round, describing, from a perspective of deepest despair, the grim details of suffering. There is no solution or hope of restitution.

Frank observes that chaos narratives, though torturously painful for those enduring them, often remain unspoken, or are whispered into the lonely darkness of night after fear and worry have stolen sleep.

Unlike restitution narratives, chaos narratives are neither welcomed nor beloved in our culture. They imply what many of us fear most: that suffering does have the power to overwhelm us, to disorient, and leave us completely shattered.

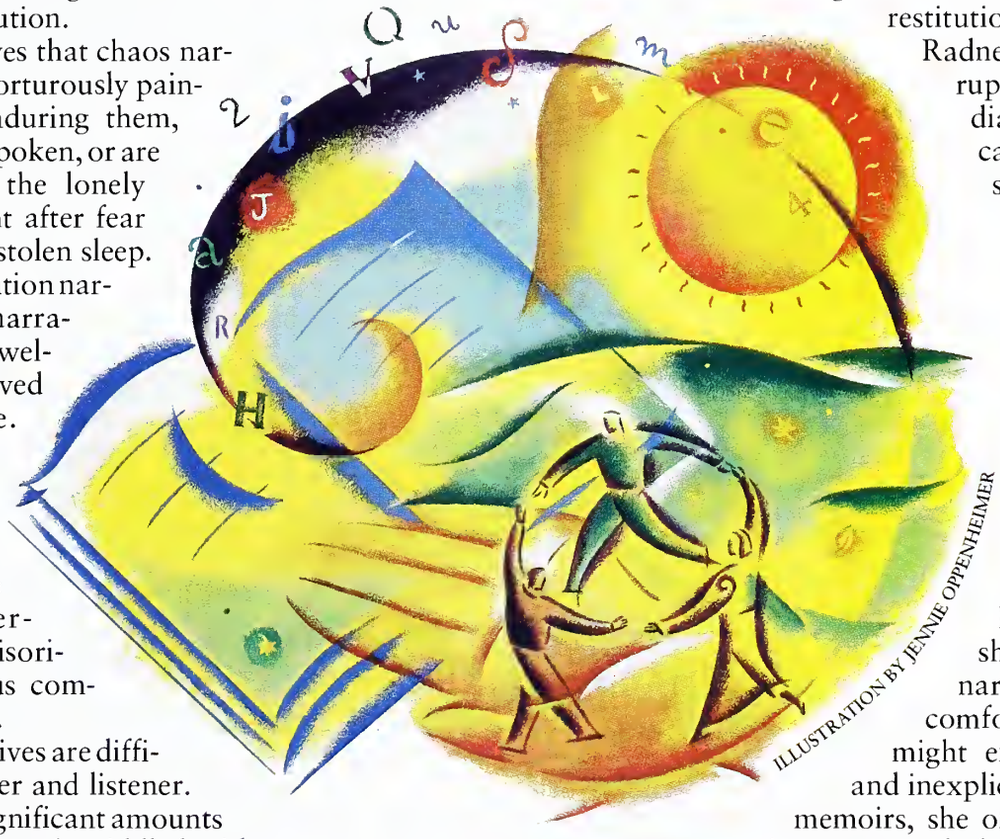


ILLUSTRATION BY JENNIE OPPENHEIMER

Chaos narratives are difficult for both teller and listener. They consume significant amounts of time and seem to be riddled with irrelevant, repetitive details. And yet, Frank points out, it is often only in the telling that they gradually take on a more hopeful tone.

I worry that beneath the cheerful daily restitution story of my hospice client there runs a chaos story waiting to emerge. How will she feel when her husband finally dies? Will those of us who so willingly listen to her now still listen when she tries to articulate her experience then?

In our restitution stories, we overcome suffering. In our chaos stories, suffering overcomes us. Both are authentic versions of human experience.

Frank describes a third contour—the quest narrative—that people sometimes use to address the complexity of their lives. Its shape is something like this: I was thrust into a quest, an impossible journey, against my wishes. It carried me far past the possibility of simple happy endings, and then, amazingly, even beyond the bleakness of chaos to a new place—a place where life's preciousness was unexpectedly revealed to me. And here will I remain for the rest of my days, with dignity and compassion.

Quest narratives wrest meaning from suffering, redeeming it, drawing forth from it blessing. Frank cites Gilda Radner, among others, as someone who grappled with her illness and created from it a quest narrative.

Most of us remember Radner from her "Saturday Night Live" days, when she was a young, gifted comedian, a master of restitution narrative. When Radner's life was interrupted abruptly with a diagnosis of ovarian cancer, her career and self-understanding were shattered in an instant.

It took time for her to comprehend that her life would never again be the same and to grieve that she would never again act, or even move, with ease. But gradually, she shaped her life into a narrative intended to comfort others who too might experience random and inexplicable illness. In her memoirs, she offered the world a moving account of what it was like to find meaning in the face of suffering.

A chaos narrative endured, given meaning, and offered to the world as a source of strength and encouragement can become a quest narrative. Quest narratives imply that we escape neither suffering nor death, but that our lives are valuable, whether they last for a decade, a year, or a moment; whether they are filled with joy or packed with sorrow.

A woman I know from my hospice work lies in bed, paralyzed. Each day, she tells her children individually how dearly she loves them. "It's always been the most important thing I do anyway," she tells me with a wink. She is shaping her life into a quest narrative.

A man weak from living more than a decade with AIDS and often nauseated from medications works from home on a hotline for those recently diagnosed, sharing the wisdom of his own experience. Through this act of compassion, he is crafting a quest narrative.

The husband of a woman who suffers from dementia slips a harmonica into her pocket, hoping the instrument she loved as a girl will somehow comfort her. When it

gets lost in the nursing home laundry, he complains, but then replaces it with a $5 model from the hardware store. When it too is lost in the laundry, he replaces it with yet another.

The harmonica in her pocket, along with the row of harmonicas waiting for her at home on the mantle, reveals a quest narrative in the making. The husband does not anticipate a happy ending. Nor has he fully surrendered to sorrow. But he understands that suffering will neither spare nor overwhelm him. He seeks, simply, to do the best he can, liberated from any final outcome.



In our offices and hospitals we will hear these three narratives of restitution, chaos, and quest from patients struggling to create meaning out of illness and suffering. While we might offer guidance, the contour of these narratives is not ours to create.

There will always be those patients who meet significant medical threats with the forced smile of denial, insisting that restitution—a happy ending—is the only possible outcome. There will be those who commit suicide after a serious diagnosis because they can only see before them a terrifying chaos. And there will be those who seem to know more about suffering—how to redeem it and wrest blessing from it no matter what diagnosis or treatment they face. These patients will teach and inspire us again and again.

Frank implies that any given restitution narrative may evolve into a chaos narrative and that any chaos narrative may be a quest in the making. Perhaps our task is simply to bear witness.

*Gretchen Thompson is chaplain, resident in health care, at Abbott Northwestern Hospital in Minneapolis. She works in hospice, AIDS, and mental health care.*

Frog?



Alligator?

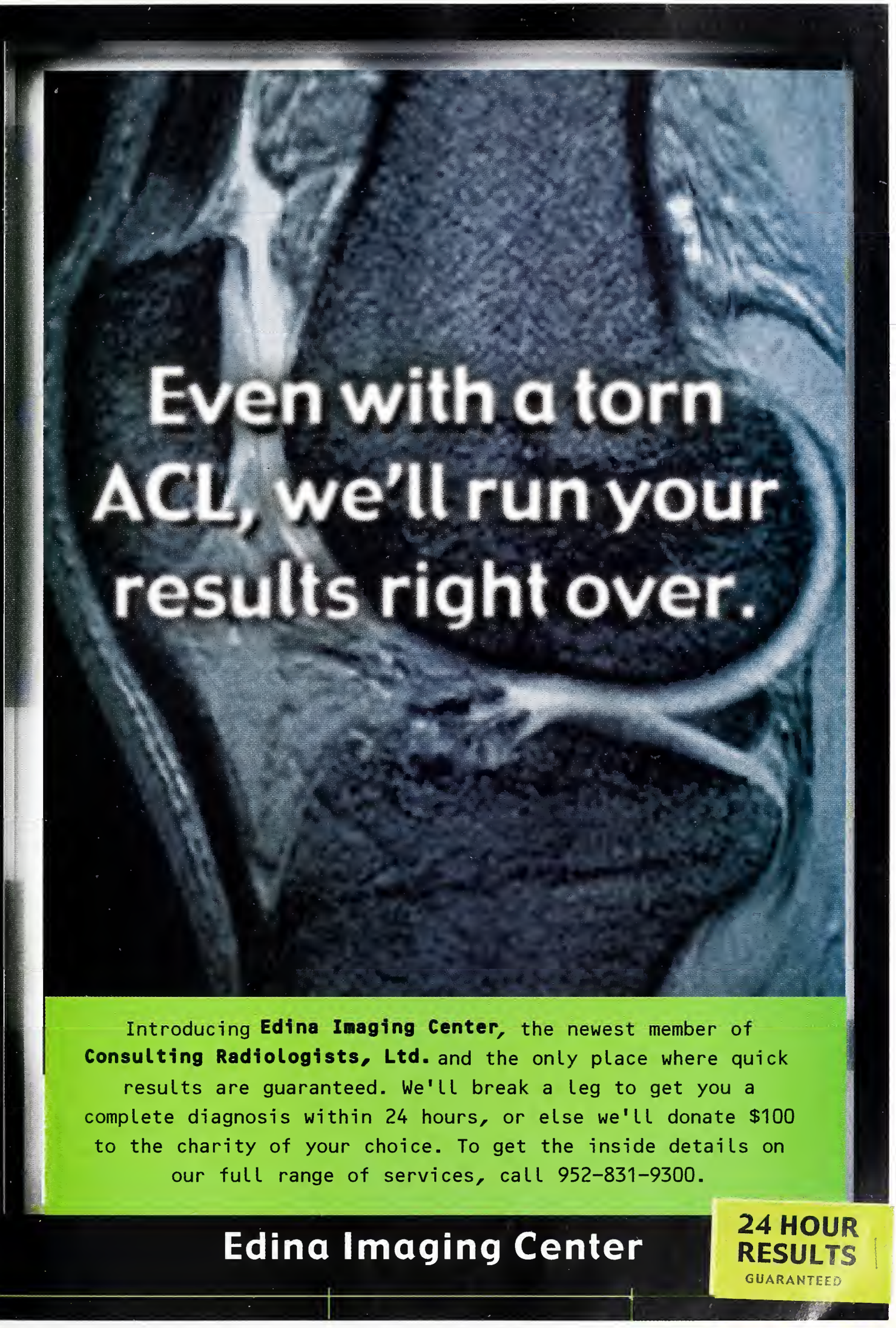
UNCOMMON WISDOM
COMMON SENSE℠

*Being able to quickly identify what lies beneath the surface is what separates an astute health care attorney from the rest. At Leonard, Street and Deinard, we carefully counsel our clients about the available options, possible risks, and likely outcomes on every legal matter. That's not only smart; it's good common sense.*

LEONARD
STREET
AND
DEINARD

MINNEAPOLIS · SAINT PAUL · MANKATO

(612) 335-1825


Even with a torn ACL, we'll run your results right over.
Introducing Edina Imaging Center, the newest member of Consulting Radiologists, Ltd. and the only place where quick results are guaranteed. We'll break a leg to get you a complete diagnosis within 24 hours, or else we'll donate $100 to the charity of your choice. To get the inside details on our full range of services, call 952-831-9300.
Edina Imaging Center
24 HOUR RESULTS
GUARANTEED

# Moving Pictures

*The Weisman Art Museum exhibit "Hospice: A Photographic Inquiry" provides a glimpse of care at life's end.*

BY CARMEN PEOTA

The images are unsettling. An emaciated young woman sits on a hospital bed staring into the camera with eyes that appear oversized for her drawn face. A mother buries her face in the shoulders of her 8-year-old son, who lies comatose in the family's living room. A walker, commode, bottles of pills, motorized chair, notebook, food, baby, and a dying man commingle in a collage of snapshots. White strips of cloth hang from tree branches and blow in the breeze. Two smiling children lean against the hospital bed where their mother, beaming, lies wrapped in brightly colored sheets. From his wheelchair a man with lesions on his face blows out the candles on a birthday cake.

These photographs are the work of five photographers commissioned by the Corcoran Gallery of Art in Washington, D.C., in collaboration with the National Hospice Foundation, to explore the experiences of the terminally ill and the people who care for them. They venture into a realm not typically associated with the world of art and beauty. Collected in an exhibit, "Hospice: A Photographic Inquiry," on display at the University of Minnesota's Frederick R. Weisman Art Museum May 20 through August 31, the photos are intended to expand awareness of hospice care and its potential to ease the physical and psychological pain of the dying. But they do more.

"Hospice: A Photographic Inquiry"
Frederick R. Weisman Art Museum
University of Minnesota
May 20–August 31, 2000

The photos also move viewers to delve into their own fears about illness and dying, attitudes about medical care, and beliefs about the end of life and afterlife. It is too easy for people to distance themselves psychologically from these subjects, says Weisman Director Lyndel King. "The hospice movement doesn't have a confrontational attitude, but they want to make you face it. They're trying to bring some understanding."

What the hospice movement would have us understand is that death, like birth, should be viewed as a natural life experience, and that, also like birth, it can be experienced with dignity, minimal pain, and peace—provided individuals receive loving and knowledgeable care. For some, hospice takes death out of the health care setting and brings it back home. For others, hospice is simply an approach to treatment and care that honors the spiritual needs of individuals as well as their medical needs.

Collectively, the exhibit's five

photographers present an image of hospice care that is both difficult and beautiful—concepts that King says aren't antithetical. "There is a real sense of beauty in intimate connections between people and also a formal beauty in the way the pictures are composed."

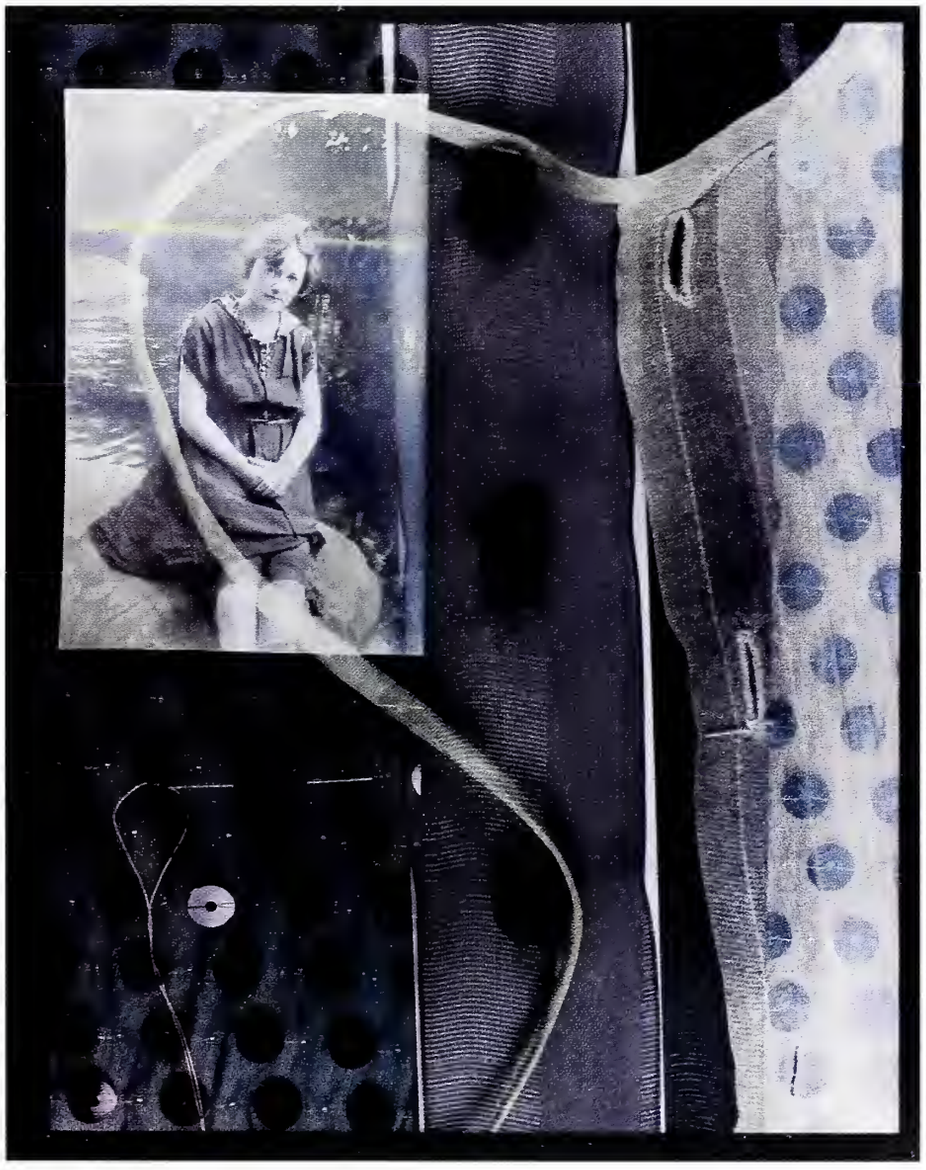
But the difficult subject matter does present King and the Weisman staff with a challenge: How do you prepare people for what they're going to see? "You can't over-prepare them," says King, "but you don't want people to be caught off guard. We don't want to have a negative impact, to be frightening. That would undo all of the things the artists would want to say."

The challenge is right up the Weisman's alley, according to Karen Casanova, the museum's director of public affairs. "The Weisman often does shows that challenge the audience," she says. "We view ourselves as a teaching museum."

While the photos themselves are instructive, the exhibit's organizers plan to provide additional education about hospice care and death that they hope will help people cope with the emotional impact of the photos. Hospice volunteers will be on hand to distribute literature and talk with visitors before and after viewing the exhibit. The museum, in partnership with health care, faith, and social service organizations, is planning lectures, music and dance performances, and other events (see list, page 19). The Weisman has also commissioned St. Paul artist Sandra Minefee Taylor to create an installation piece that will provide opportunities for people to respond to the show.

## *Kathy Vargas*

For Kathy Vargas, the hospice project was an opportunity to celebrate lives rather than record deaths. "I wanted to remember and celebrate those who were gone," she says, "because they were so loved and valued by their families and friends." Using images that represent what was precious in life, Vargas creates visual shrines that perpetuate the memories of loved ones. For Vargas, memory is a means to sustain life. "I'm less interested in the passing of life than in its persistence," she says. Vargas overlays images of ribbons, buttons, maps, flowers, drawings, and notes with photographs to create collages that seem to work like memory itself. Her works remind us that although memory is ethereal and life is transient, love is lasting.



PHOTOGRAPHS COURTESY OF THE WEISMAN ART MUSEUM AND THE CORCORAN GALLERY OF ART

Minefee Taylor is building what she calls a "situation" in which people who have seen the photos can write on dissolvable paper thoughts they wish they had said to someone who has died. The messages will then be launched in a pool. "It's a way to satisfy those needs we all have," she says, "a way to make remembering a physical activity.

"Death is incredibly scary," she says, "but we'd all be a little better off if we understood it as part of life." Minefee Taylor should know. In 1995 she lost her husband to a brain tumor. "Being an artist ... is what saved my life," she says. "If you don't take what's going on inside and manifest it outside, it festers." Minefee Taylor hopes the exhibit stimulates viewers to discuss their ideas, attitudes, and conceptions about death and dying. "Art," she says, "gives people the courage it takes to say things they wouldn't in the intellectual side of life."

King, too, hopes that visitors will leave the exhibit with a greater understanding of death and a commitment to facing it personally. But she also hopes people go away with a greater understanding of the power of art in everyday lives. "This is not just social service," she says. "The photos have high artistic quality and value." It was, in fact, the artists' reputations that persuaded the Weisman to do the show. "These are artists whose work is known throughout the country for its high quality in terms of composition and technical skill." Because so many people take photographs, she says, we sometimes fail to respond to

## Nan Goldin



Nan Goldin had lost several friends to AIDS before she began photographing residents of the Cabrini Hospice in New York City. Thus, the project became a means to deal with her losses and her own mortality. "For me, photography has always been about staving off loss," she writes. "My pictures help me remember how much I've lost." Goldin photographed her subjects with the people and things that had become important to them at the end of their lives. Her photographs conspicuously display tables stacked with vials and syringes, religious figurines, family photos, candy wrappers, and calendars. But faces are obscured by shadows. In Goldin's photographs we see the complexity of human emotions—despair, anger, hope, and tenderness—reflected in the rooms of the dying.

photos as art. "But there is artistry. We think, 'I could have taken that.' But we couldn't. There is the angle, the light, the frame."

The combination of art and issue is what gives this exhibit its power. The photos express deep and often unsaid emotions and experiences. That they capture real individuals in real settings makes them especially emotionally charged. "There is commonness in photography," King says. "But people will find beauty."

"Hospice: A Photographic Inquiry" is a testament to the tenacity of hospice care providers as well as the multifaceted needs of individuals at the end of life. It portrays the power of a movement begun in England in 1967 by nurse-physician-social worker Cicely Saunders. Hospice represented a new paradigm of care for the dying, a shift from meeting the patients' medical needs to pain relief and an emphasis on addressing patients' psycho-spiritual needs. The movement spread to the United States in 1974 with the opening of this country's first hospice in New Haven, Connecticut. All five photographers in the exhibit seem to be working out an experience with death in their own life. The result is a collection of images that portray the diversity of experience—from the deepest depression to the greatest joy—amid one of life's universal experiences.

*Carmen Peota is associate editor at* Minnesota Medicine.

## *Jim Goldberg*




Photographer Jim Goldberg learned that his father in Florida needed hospice care about the time he was contacted by the Corcoran to participate in the exhibit. "As an artist, it made no sense for me to look at somebody else's death when my father's life and death were events I had to come to terms with," he says. Goldberg uses a combination of old photos, notes, letters, pages from his own diary, and photographs to detail the day-to-day experience of his family and explore his emotions about losing his father. In one group of photos, he includes images of his own wife and baby, an empty recliner, a cupboard stocked with cans of soup, a clenched fist, a caregiver helping his father in the bathroom, and his mother and father asleep together. In painstaking detail, he portrays the effort of providing care and the tedium of dying. In viewing Goldberg's work, you feel yourself a voyeur, paging through the intimate snapshots of a family album. We are in the bedroom, the bathroom, the kitchen, and the living room in a house where family members play cards as well as administer oxygen, prepare food as well as dispense pills, and play with a baby as well as tend to a dying man. Goldberg has chronicled the experiences of his family, then opened his diary for all to see.



## Jack Radcliffe

Jack Radcliffe's mother had just died, and his father was dying, when he was approached about the hospice project. "I wasn't dealing at all with my loss," he says. Although he was apprehensive about spending time at a hospice, he agreed to do the project and began making repeated visits to York House Hospice in York, Pennsylvania. Radcliffe moved in closely with his camera to focus on the individuals and issues he once held at bay. The result is a series of images intensely personal and intimate. With crystal clarity, we see the forehead of a man as he combs his hair, the tightly clasped hands of lovers, and the thin face of a child. His images put a face on the dying that we can't forget.

## Sally Mann

Sally Mann set out to discover what matters to the dying. "I wondered whether the trivial or the transcendent assumes greater importance in our final months," she writes. Accompanying a friend and hospice nurse, Mann found herself welcomed into the homes of strangers. Rather than photograph the characters themselves, Mann listened to their stories, recorded them, and aimed her lens away from the subjects. Thus, we see in her photographs not people, but the places and things that the dying desire. Mann captures in writing, as well as on film, the incidents, both tender and absurd, that transcend the trivial.



# Stories of Passage

*A Series of Programs Offered with "Hospice: A Photographic Inquiry"*

DANCE PERFORMANCE

**Where Are You?—Moving Inquiries**
*Stuart Pimsler Dance and Theater*

Thursday, May 25 and Saturday, May 27, 7 p.m.

$10/$5 Weisman members, students, seniors, and health care workers

For tickets call the Museum Store at 612/625-9495

Cosponsored by Pathways, A Health Crisis Resource Center.

COLLEGE OF LIBERAL ARTS CRITICAL DIALOGUES SERIES

**Discussion: The Ethics of End-of-Life Care**
*Susan Wolf, Alex Rothman, and Barry Baines*

Wednesday, May 31, 7 p.m.

Reception begins at 6 p.m.

THE FLORENCE SHORSKE WALD LECTURE
PRESENTED BY THE KATHARINE J. DENSFORD CENTER FOR NURSING LEADERSHIP

**The Ethics of Caring: A Vision for the New Millennium**
*Ira Byock*

Wednesday, June 7, 3 p.m.

Radisson Hotel Metrodome Ballroom
615 Washington Avenue, Minneapolis

Reception and tours of the exhibition follow at the Weisman Art Museum, 4:30 p.m. to 6 p.m.

Cosponsored by the Center for Spirituality and Healing, the Center for Bioethics, and the Frederick R. Weisman Art Museum, all at the University of Minnesota

DIALOGUE

**A Conversation with Photographer Jim Goldberg**
*Jim Goldberg and George Slade*

Thursday, June 15, 7 p.m.

READINGS

**Give Sorrow Words: Passages of Grieving**
*Andris Baltins, Patrice Clark Koelsch, William Reichard, Margaret Wurtele*

Thursday, June 29, 7 p.m.

CLASS

**Expressions of Grief and Healing in Photography and Literature**
*Patrice Clark Koelsch*

Tuesdays, July 11 to August 1 (four meetings)

6:30–8:30 p.m.

$87/$78.30 age 62 and Weisman members

Billy and Jody Family Seminar Room

To register call the Compleat Scholar at 612/625-7777.

MINISERIES

**Stories of Passage from Different Cultures**
*Representatives from three growing Twin Cities communities explore different cultural perspectives on death practices and traditions of caring for the dying.*

Somali Perspectives
*Douglas Pryce and Osman Ahmed*
Thursday, July 13, 7 p.m.

Hmong Perspectives
*True Thao*
Thursday, July 20, 7 p.m.

Native American Perspectives
*Yako Myers*
Thursday, July 27, 7 p.m.

LECTURE DEMONSTRATION

**Body Jazz: The Voice of Healing**
*Marilyn Habermas-Scher*

Thursday, August 3, 7 p.m.

Dolly Fiterman Riverview Gallery

SPECIAL EVENT

**Opening Reception**
Saturday, May 20, 7–10 p.m.

*Exhibition viewing, refreshments, and performances from the Twin Cities' Gay Men's Chorus and the Bel Conto Voices, a young girls' chorus.*

Tickets $10/$5 for WAM members, students, seniors, and health care workers.

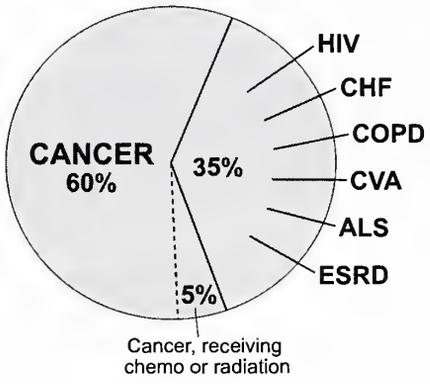
For tickets call the Membership Department at 612/625-4460.

All programs take place at the Frederick R. Weisman Art Museum and are free of charge unless otherwise indicated. For more information, please call 612/625-9494.

# WE SERVE ALL PATIENTS WITH TERMINAL DISEASES, REGARDLESS OF THERAPY.

*We will tailor palliative services to the needs of your patients and families.*

**PATIENTS WE SERVE**




## COMMUNITIES SERVED

Anoka County
Carver County
Chisago County
Dakota County
Hennepin County
Isanti County
Kanabec County
Le Sueur County
Pine County
Ramsey County
Rice County
Scott County
Sherburne County
Washington County
Wright County

ALLINA
*Hospitals & Clinics*

**Hospice and Palliative Care**
2750 Arthur Street
Roseville, MN 55113
651-635-9173
1-800-488-5139

## Blaine Medical Center

is seeking BC/BE Family Practitioner to join four Family Practitioners in a growing practice located in northern tier suburb of the Twin Cities.

Excellent salary and benefit package. Shareholder potential after one year.

Blaine Medical Center is affiliated with Multicare Associates, an independent physician owned practice with locations in Blaine, Fridley, and Roseville.

CONTACT:
**Steve Bentz, M.D. at 612-785-8544 or Jeannine Schlottman at 612-785-3338.**

www.multicare-assoc.com

## Medical Director Software Company

A leading-edge internet software company located in the Twin Cities is seeking a Medical Director to assist in the development of its software products.

This individual will have the opportunity to work at the forefront of combining medicine with internet technologies. Qualified candidates will have 5+ years clinical experience as an M.D. in internal medicine, are highly motivated self-starters, have excellent interpersonal skills and have an interest in the internet.

The compensation package for this position includes a competitive salary and full benefits.

Interested parties should fax resumes to 612-941-7019, attn: Susan Workman, H.R. All resumes will be held in strict confidence.

Clear blue skies, fresh air, wide-open spaces and clean lakes await you. MeritCare Medical Group is seeking talented, energetic physicians to join thriving, diverse practices.

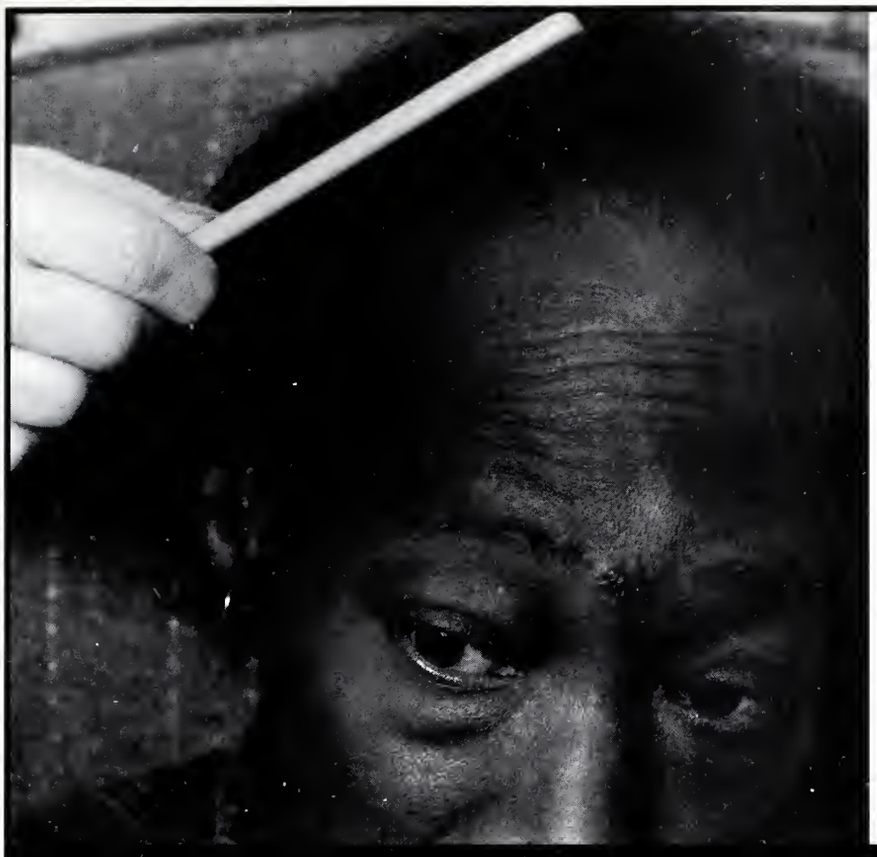
MeritCare Health System is the premiere Health System between Minneapolis and Seattle, MeritCare Medical Group is a 350-physician multi-specialty group with a strong primary care base and MeritCare Hospital is a 380-bed tertiary/trauma hospital. Fargo-Moorhead is a tri-college community of 160,000 with excellent public and parochial schools and a park department that provides activities for all age groups year round.

We are seeking BC/BE physicians in the following specialties:

**Adult Psychiatry**
**Anesthesiology**
**Child/Adolescent Psychiatry**
**Dermatology**
**EatingDisorders Clinician**
(PhD, PsyD or Masters prepared)
**Family Practice**
(Fargo, ND; E. Grand Forks, MN; Jamestown, ND)
**General Surgery** (Valley City, ND)
**Hematology/Oncology**
**Internal Medicine**
**Interventional Radiology**
**Invasive, non-interventional Cardiology**
**Neonatology**
**Nephrology**
**Neurology**
**Neurosurgery**
**Obstetrics/Gynecology** (Detroit Lakes, MN)
**Orthopaedics**
**Otolaryngology**
**Pediatrics**
**Reproductive Endocrinology**
**Rheumatology**

Contact Kathleen Toft, Physician Recruiter, 737 Broadway, Fargo, ND 58123 or call 1-800-437-4010 or fax vitae to 701-234-2316. My e-mail address is kathetoft@meritcare.com or check our web site at www.meritcare.com

**MeritCare Medical Group**
EOE/AA Employer



**Hospice care**, offering physical, emotional, and spiritual assistance to terminally ill people and their families, is the subject of this unique exhibition featuring the work of five outstanding American photographers. By immersing artists in the world of patients, families, and health care providers, each project documents individual perspectives on the collaborative experience of living and working in hospice environments throughout the country.

**HOSPICE:** A PHOTOGRAPHIC INQUIRY conveys the power with which art is able to reveal a facet of life that may not be part of our experience.

Frederick R. Weisman Art Museum at the University of Minnesota

*presents*

# **HOSPICE:** A PHOTOGRAPHIC INQUIRY

**May 20-August 13, 2000**

**Opening Reception**
Saturday, May 20th 7-10 pm

For information on education programs call 612-625-9494

Above: Jack Radcliffe, *Gill,* February 25, 1995, Gelatin sliver print, Courtesy of the artist

**HOSPICE:** A PHOTOGRAPHIC INQUIRY was organized by the Corcoran Gallery of Art in collaboration with the National Hospice Foundation. Its presentation at the Weisman is made possible through the generous support of Allina Health Systems, HealthSystem Minnesota, Minnesota Hospice Organization, North Hospice, Pathways: A Health Crisis Resource Center, Rice Memorial Hospice, as well as many other organizations and individuals.

**w**eisman **a**rt **m**useum
333 East River Road
Minneapolis, MN
www.weisman.umn.edu

UNIVERSITY OF MINNESOTA

# Soul Music

## Enhancing End-of-Life Care with Music Therapy

BY JODI OHLSEN READ

Music was one of the last enjoyable experiences Betty Diersen was able to share with her daughter Julie Koch, who died last December after battling non-Hodgkin's lymphoma. "Music is part of our lives, and it was important to my daughter," says Diersen, who found herself participating in music therapy sessions provided by Dawn Miller, music therapist, HealthSystem Minnesota. "It was accidental at first—I was there, so I just joined in. I sang along, we sang in harmony, and Julie would participate in whatever way she could. We just had a good time."

That music can offer emotional comfort to the dying might be enough to justify including it in end-of-life care. But evidence suggests it does more. "Music therapy has both a neurological and scientific basis as well as [a basis in] art," says Deforia Lane, Ph.D., assistant professor, Case Western Reserve School of Medicine. "We've seen that it can enhance and improve care. It can make the physician's work easier and improve the patient's quality of life. And it also inherently improves the healing—medically and psychologically." Music, Lane says, can reduce anxiety, stress, heart rate, blood pressure, and even pain.

Lane has used music to help lower blood pressure and respiration rate. "Music can be something that entrains the breathing pattern," she says. "The atmosphere in the room is dramatically different. Imagine an eight-foot harp at your head. Even the doctors would be calmer and the nurses would talk more quietly."

Music therapy is one of a growing number of complementary care methods that emphasize the needs of the whole patient at the end of life. It represents a shift in focus from fighting the illness to aiding the dying process. "One of the most important things, and this is difficult for physicians to deal with, is to make a switch from focusing on killing the cancer, for example, to helping the patient enjoy life for however long they have left," says J. Paul Carlson, M.D., hospice medical director, Methodist Hospital, HealthSystem Minnesota. "It puts the focus on the person rather than on the disease."

"Our philosophy is comfort care—anything to make the end of life more comfortable, more dignified," says music therapist Marie Rodier, Fairview University Medical Center. "If we just address the medical issues, we aren't dealing with the whole person, their comfort level, and their reconciliation with life issues."

This emphasis on the whole individual is the basis for palliative and hospice care. Palliative care, which focuses on improving the quality of life for patients nearing the end of life and helping them and their families deal with the related transitions, can include any treatment, care, or support that prevents or relieves symptoms or suffering. Hospice care is tailored to the last six months of life. Patients most often receive hospice services, provided by an interdisciplinary team of health care professionals, at home or in nursing homes and assisted-living facilities.

"Dying is inherently hard, but it need not be horrible," palliative care expert Ira R. Byock, M.D., told the Committee on Government Reform last October. "We possess the medical expertise and more than enough resources to ensure that no one will die in physical agony. Pain and other distressing symptoms among dying persons can always be alleviated. Doctors and nurses may not be able to eliminate a person's pain, but we are

always able to make it a little less severe, a bit more tolerable," said Byock, director of the Palliative Care Service and research professor of philosophy, University of Montana.

Palliative care can play a significant role in making a life-limiting illness more tolerable. "By managing symptoms, helping people address the difficult, but normal, psychosocial and spiritual concerns they may have, and assisting with coordination of medical care and support services ... palliative care can dramatically improve the quality of life for the patient and his or her family," Byock testified.

Complementary care offers numerous treatments that fit the goals of palliative and hospice care, providing support and symptom management. Art therapy, music therapy, journaling, massage therapy, life review, and aromatherapy are among the approaches used to help patients manage pain, address emotional issues, and find spiritual comfort.

*Music therapy is not just for the patient. Often family members and friends participate in the sessions and are deeply affected.*

Music therapists are degreed specialists who offer patients choices of how to use music to make their experience as comfortable as possible, according to Lane. Approaching each case methodically, the music therapist starts with an assessment and then sets measurable goals. Using this information, the therapist chooses an appropriate intervention. For example, music might be used to encourage a patient to express feelings of fear, anger, or shock after receiving an initial cancer diagnosis. A patient experiencing social isolation or boredom may be engaged in playing instruments or singing to help generate feelings of support and satisfaction.

"Working with the hospice team, we determine which needs can be met through music therapy," says music therapist Dawn Miller. "Have the patient's daily activities decreased? Are they experiencing depression? We also look at the patient's music history. What kind of music have they enjoyed? Do they sing or play instruments? Then we can decide which music therapy interventions will work best."

Usually, the music is live, which requires the therapist to have a range of musical ability. "We use live music most because studies show that live music is more effective than recorded. Plus, we can reproduce almost any type of music on the spot," says Miller, who sings and plays the guitar and keyboard. One technique therapists use is musical life review. "We take music from different periods of a patient's lifetime—childhood, teenage years, courtship, young family life, and so on. Because music is so powerful in bringing people to those emotions of the time, it can bring back the details and feelings, helping them to reflect on their lives and perhaps draw some insights and some coping skills to deal with a terminal illness."

Music was a comfort to Maureen Bernier and her husband during his last days. "The first time Dawn [Miller] visited, he was quite alert. She played all of his favorite hymns. And from 1948, she played the 'Blue Skirt Waltz.' It was really kind of funny. You could see his toes tapping under the covers," says Bernier. A few days before her husband died, Miller visited again. "He wasn't responding at all. ... She played mostly his favorite hymns that day. Even though he didn't open his eyes, I'm sure he heard. Music is a real soothing thing, and my husband had always loved good music."

Another method might involve having patients write a song about their life, expressing a goodbye message to family or addressing other emotional issues. Music is also used frequently to teach relaxation techniques. Music therapists can help patients identify the type of music that helps them relax and can create personalized tapes for the patients to use for pain management.

Miller also uses adaptive instruments. "If someone is



a keyboard player, I might bring in a lap keyboard," she says. "If they can't cognitively play, I bring in an electronic autoharp–type of instrument. This is a very successful experience for patients who can no longer do what they could once do."

Music therapy is not just for the patient. Often family members and friends participate in the sessions and are deeply affected. "It was very comforting to me as a caregiver, too," says Bernier. "It was a bright spot and there weren't many of those."

In Julie Koch's last days, music provided common ground for family. During Miller's final session with her, the entire family gathered at her bedside and joined in song. "We believe she was more aware of us that day than she had been. It was very dramatic and emotional," says her mother, Betty Diersen.

Because most people have enjoyed music during their lives, either as musicians or as listeners, music therapy is usually well received. "It is something people are familiar with, using music as emotional support," says Miller. "Many times it can provide strength and insights that verbal therapy alone does not."

Music can be a way for patients to express themselves when they cannot or may not want to talk. One patient particularly benefited from music therapy, recalls Virginia Bender, R.N., community liaison and coordinator of palliative Team Care for Fairview Homecare and Hospice. "He was a very private person who didn't communicate much, but he had a passion for music. He used the music therapy to communicate. He really opened up," she says.

Acceptance of music therapy seems to be increasing, partly because of patient awareness and the research that supports music therapy effectiveness (see sidebar below). Researchers are studying the effects of music therapy in areas such as pain management and anesthesia, Parkin-

## *Additional Resources on Music Therapy and Other Complementary Therapies*


Aldridge D (ed). Music therapy in palliative care: new voices. London: Jessica Kingsley Publisher, 1999.

Bartlett D, Kaufman D, Smeltekop R. The effects of music listening and perceived sensory experiences on the immune system. J Music Ther, 1993;30:194-209.

Chan L, Tracy MF. Music therapy in critical care: indications and guidelines for intervention. Crit Care Nurs 1999;19(3):35-41.

Clair AA. Therapeutic uses of music with older adults. Baltimore, MD: Health Professions Press, 1996.

Curtis S. The effect of music on pain relief and relaxation of the terminally ill. J Music Ther, 1986;23:10-224.

Martin JA. Music therapy at the end of life. In KE Bruscia (ed), Case studies in music therapy. Phoenixville, PA: Barcelona Publishers, 1991:617-32.

Marwick C. Music therapists chime in with data on medical results. JAMA 2000;283(6):731-3.

Rykov S. Bibliography for music therapy in palliative care. Am J Hosp Palliat Care, May/June 1998;74.

Taylor DB. Biomedical foundations of music as therapy. St. Louis, MO: MMB Music Inc., 1997.

Trauger-Querry B, Haghighi KR. Balancing the focus: art and music therapy for pain control and symptom management in hospice care. Hospice of the Western Reserve, Cleveland, Ohio. Hosp J 1999;14(1):25-38.

Wheeler B. (ed). Music therapy research: quantitative and qualitative perspectives. Phoenixville, PA: Barcelona Publishers, 1995.


JAMA will devote a theme issue to end-of-life care in November 2000, examining the shift from prevention to palliation and the role of the physician in helping patients through the end-of-life journey.

son's disease and other neurological disorders, and physical rehabilitation.

Rodier has seen changes in music therapy during the past 17 years, including a greater emphasis on medical outcomes. "We're able to show that during music, heart rates may decrease and so on. People are looking more at the physiological changes," she says.

"The vast majority of patients who try music therapy embrace it," says Nancy Gelle, public health nurse and nurse manager of Methodist's Home Care Services and Hospice. When people are terminally ill, she says, they are so focused on their medical condition and dealing with doctors that paying attention to other aspects of their life becomes important. "Physicians have also been very supportive," adds Gelle. "The service generally comes through the hospice program."

HealthSystem Minnesota offers music therapy and massage therapy, as does Fairview Homecare and Hospice. Hospice teams often choose which options to include under an umbrella of provided services funded by a per diem from Medicare. In some settings, such as Fairview Homecare and Hospice, physicians write music therapy into the standing orders for palliative and hospice care to ensure that the option is made available.

"Our patients love the music therapist and massage therapist," says Fairview's Bender. "We've found it very helpful in symptom management."

Most Minnesota insurance companies do not cover music therapy. Funding (which supplements the Medicare per diem) for music therapy and other complementary therapies often comes from hospitals or foundations.

Treatments such as music therapy could reduce costs associated with terminal illnesses. "If we can deter hospitalization's negatives, improve the quality of life, lessen a patient's perception of pain, or shorten their stay, then third-party payers are very progressive minded in accepting that some less expensive therapies might reduce cost," says Lane. "We make the jobs of many physicians and nurses much easier and quality of life for patients better at far less cost than with some other treatments." MM

*For help locating a board-certified music therapist in Minnesota, or for more information, contact the Music Therapy Association of Minnesota, 612/996-8912.*

*Jodi Ohlsen Read is a freelance writer in Carver, Minnesota.*

ASPEN
Medical Group

Aspen Medical Group is a 160+ provider multi-specialty group with 9 clinics located throughout the Minneapolis / St. Paul metro area. We are currently seeking BE/BC physicians for the following specialties:

*Dermatology*
*Hospitalist*
*Internal Medicine*
*Urgent Care*

Aspen Medical Group is governed by its own physicians and health care providers. Guaranteed base salary available for the first two years. Competitive benefits package.

For further information, please contact:

Nancy Borgstrom, Provider Services Coordinator
1020 Bandana Boulevard West
Saint Paul, MN 55108
phone 651-641-7081 • fax 651-641-7151
e-mail nborgstr@aspenmed.org

EOE. No J-1 opportunities available.



HOSPICE OF THE TWIN CITIES

*Hospice care is a promise... a promise given to individuals facing a terminal illness when choices seem so few.*

*Hospice of the Twin Cities promises to deliver quality end-of-life care by:*

- *Respecting the choices made by our patients and advocating for those choices.*
- *Striving to alleviate the physical, social, emotional and spiritual suffering of our patient and their family.*
- *Focusing on maintaining our patient's dignity.*
- *Affirming the value of each patient's life while appreciating the beauty in the transition from this life to the next.*

(612) 531-2424
7100 Northland Circle, Suite 205
Minneapolis, MN 55428

# Learning to Be Present to Dying Patients

*From ancient woodcuts to contemporary ad images, art can be a powerful tool for teaching medical students about death and end-of-life care.*

Martin Kohn, Ph.D.

How can we teach medical students the importance of being at the bedside of dying patients? This question has been troubling me for a number of years. It has troubled other medical educators as well, judging by the spate of recent initiatives—most prominently, the Open Society Institute's Project on Death in America and the Robert Wood Johnson Foundation's Last Acts initiative.*

Although all medical students will deliver a baby at some point in their training, very few will sit by the bedside of a dying patient or have rotations in hospice or home-care settings.[1] Physician-philosopher Eric Krakaur made a similar observation: "In short, although we as physicians attend to the dying every day, we have not attended to dying itself, the process of dying in the technological age."[2] In "My Own Country," a best-selling book about caring for AIDS patients in rural Tennessee, Abraham Verghese confesses his discomfort with end-of-life care, no doubt expressing sentiments shared by many physicians:

"I had always felt inexpert when a patient was near death. ... Give me a patient with massive gastric bleeding or ventricular fibrillation and I am a model of efficiency and purpose. Put me at a deathbed, a slow dying, and purpose is what I lack. I, who till then have been supportive, involved, can find myself mute, making my visits briefer, putting on an aura of great enterprise—false enterprise. I finger my printed patient list, study the lab results on the chart, which at this point have no meaning. For someone dealing so often with death, my ignorance felt shameful."[3]

## *Students' Stories*

My concerns about the lack of end-of-life-care training for medical students were heightened a few years ago while I was conducting a medical ethics writing exercise for students during their third-year internal medicine rotation. During the exercise, two students told very dissimilar but revealing end-of-life care stories. My physician colleague and I placed the first story, a loss-of-hope tale that related the failure of the medical team to heroically save the patient, into the "there's nothing more we can do" category. The scenario usually goes like this: After all the technological interventions have been tried, the members of the "team" turn their back on the patient, and with heads lowered leave the room saying to themselves—and sometimes to the patient and family members—"There's nothing more we can do." When my colleague and I hear this type of story, we protest that there is still PLENTY that medicine can and should do.

Even more revealing than the first student's narrative was the discussion that followed. When the student was asked whether he had considered staying in the room with the dying patient, he said, "What good would it have done?" He then remembered that he had returned to the room to witness, as he put it, the patient's "beautiful Cheyne-Stokes breathing." This student was willing to be with the dying person, but he saw her in a depersonalized, albeit aesthetically pleasant (to him, at least!), way.

The second student's tale reflected a fear of challenging the medical hierarchy, a common reaction in medical students. The story described an experience during an ob-gyn rotation. A woman had come to the ob-gyn clinic to abort a fetus, which when removed from her uterus was struggling for air. As in the first story, the medical team walked away. The student, however, couldn't decide whether to stay with the fetus and risk being seen as weak or to move on to the next case with the team. Unwilling to be with the fetus himself, the student called a nurse who he knew held deep fundamentalist religious beliefs, anticipating that she would come to be present with the fetus if she knew of the situation. She responded as he expected.

In an attempt to go beyond what Bauman terms "mere co-presence," or merely being with an other, to a connection with an other "that fills the connected with content,"[4] I recently spent about four months volunteer-

*Also of note, and scheduled for release in fall 2000, is the PBS series, "On Our Own Terms: Moyers on Dying in America." Its aim is to go to the frontline of the growing movement to improve end-of-life care.

ing in a hospice program. From my experience as a volunteer came a third story—my own—that finally propelled me to search for artistic images of death and of the physician at the bedside of the dying patient to use in my teaching.

While visiting one of my first hospice patients, I was struck by the seemingly choreographed movement of the caregivers around the patient's bed. In this death vigil (the patient died the next day), friends and relatives moved in and out of the room, or stood near or far from the dying patient along with the nurses and other (nonmedical) caregivers. The synchrony was unmistakable. Synchrony is what Hall suggests emerges from the "rhythm [that] is so much a part of everyone's life that it occurs virtually without notice."[5]

The vividness of the scene I had witnessed and the memory of my students' stories led me to wonder about using artistic representations of death and of care of the dying to foster a willingness in my students to be present at the bedside of dying patients.

My initial search of images from the world of art, which I limited primarily to 15th-century to present-day western European paintings, drawings, and prints in medical texts and in books about medicine and the arts, revealed a broad vista of death iconography. I was struck by two genres in particular that arose in the late Middle Ages—the woodcuts of the Ars Moriendi (Art of Dying) and the more numerous and still-produced representations of the Danse Macabre (Dance of Death)—and by artistic representations of the many nonphysician others (family, nurses, clergy) who have been and continue to be at the bedside of the dying patient. I was particularly intrigued with the relationship of the Ars Moriendi prints to contemporary depictions of physicians at the bedside of dying patients, and with how I might use them to educate medical students about end-of-life care.

## *Ars Moriendi—the Art of Dying*

The Ars Moriendi, which was part of the courtly advice literature of the period that included codes of table and other personal manners, emerged in 15th-century western Europe. O'Conner suggests that the plague likely created the need for such a work.[6] During plague epidemics, Christians felt the need to find "a method of directing

FIGURE 1



BRITISH MUSEUM, LONDON

*Impatience, c. 1450, from a Netherlandish ars moriendi.*

FIGURE 2



PHILADELPHIA MUSEUM OF ART; PURCHASED: SMITHKLINE BECKMAN FUND CORPORATION

*Triumph Over Temptation, c. 1450, by E.S. Master.*

FIGURE 3



HEALTH EDCO, WACO, TEXAS

*A Day in the Hospital, by José Perez.*

their own passing to a happy eternity" because of the suddenness of death from plague and the unpredictability of a priest's presence at the deathbed.[6] The Ars Moriendi, a practical how-to-die handbook for the ordinary (i.e., venial) sinner in extremis,[7] fulfilled this need. Although it arose at the same time as the Dance of Death motif, it is not macabre. Like the Dance of Death, it aims to reduce anxiety and highlights the closeness of life and death. But in the Ars Moriendi, life and death "meet crucially, at the last minute" of life when the soul's fate is decided.[7]

The text of the Ars Moriendi details the inspirations needed and the temptations that must be avoided for a Christian's soul to secure a place in heaven. The English version of the Ars Moriendi, "The Book of the Craft of Dying," describes the five temptations confronting the dying man (Moriens): to be averted from faith; to be turned against hope by despair; to give in to impatience; to allow pride to prevent contrition; and to be overly occupied with the temporal world, that is, with avarice.[8] Because not all the courtly audience for this book of advice was lettered, the shorter of the two versions of the Ars Moriendi also contained woodcuts. O'Conner notes, however, that the Church had discovered the value of pictures for instilling truths in the illiterate long before the 15th century.[6]

Each of the numerous editions of the Ars Moriendi depicts 11 scenes. The first 10 scenes illustrate the five temptations awaiting Moriens, as well as the opposing five virtues or inspirations needed to resist the temptations. For example, in the print illustrating the temptation to impatience (Figure 1), a devil tempts Moriens, who "having overturned the bedside table and with it a bowl, a glass, and a spoon, is now kicking the doctor, who is retreating in alarm."[6] In the illustration of inspiration against avarice, the background figures include a group of five persons, probably friends and relatives, and some sheep, "which may represent his possessions. But closer to Moriens is the figure of Christ upon the Cross beside his grieving mother, a reminder to the sick man of Christ's detachment from earthly things as he approached death."[6] The final scene in the series illustrates the victory of inspiration over temptation (see Figure 2) with the carrying of Moriens's soul (emerging from his mouth in the shape of a newborn child) to heaven by saints and angels. Below the bed of Moriens are the angry, and once again defeated, devils and demons.

## *An Ars Moriendi for Our Time*

Many critics of our contemporary health care system are calling for an Ars Moriendi—instructions on how to die well—for our age. They point to death historian Philippe Aries' claim that most of us will experience a wild death filled with complexity, fear, and medical management, not a tame death of simplicity, tranquillity, and resignation. Harmon calls for a shattering of the silence surrounding the subject of death in order to "help alleviate the horrors of the late-twentieth-century death watch."[9] And Bauman suggests that we are silent at the time of dying because the only language "we both command and share [is] the language of survival."[4] But lack of preparedness for death and dying is not just medicine's or medical education's problem. "Although all of us will die, hardly anyone is prepared, or is preparing, to die right,"[10] suggests Imhof.

Is there a way for medical students to learn how to help patients find an Ars Moriendi for our times? Cassell believes "that it is possible, and even a duty, for a physician to teach patients how to die."[11] But how can this instruction happen if medical educators don't lead their students to the bedside of the dying patient? More important, perhaps, is rehearsal a necessary first step? And could a successful rehearsal be based on the scenes of death and dying artists have shown us?

I propose to use art in my teaching about death and dying not as a means of implanting truths, as the Church may have tried to do with the Ars Moriendi, but as a means of raising issues, promoting critical thinking, and sharing hopes and fears in the classroom. Perhaps an immersion in art will prepare the students for when I go a step further and ask them to get a feel for the deathbed scene. I hope to achieve this by having them rehearse their

stance at the bedside of dying patients through the creation of a tableau vivant, i.e., a "living picture" wherein they become actors in the depicted scene.

## *Contemporary Scenes of Dying*

In addition to the scenes of dying in the Ars Moriendi and the Danse Macabre, I plan to use in my teaching contemporary works of art, such as those by José Perez and George Tooker, as well as less enduring images that appear in magazines.

José Perez's satirical art "is intended to prod the viewer to question and think about the more serious issues confronting our health care system today."[12] His work, "A Day in the Hospital" (see Figure 3) "shows the inescapable relationships between healers, sufferers, disease, and death." Included in this painting are numerous individuals, groups, artifacts, and even animals, though our attention is drawn to a patient seemingly near death. What is the larger-than-life physician at the foot of the dying man's bed thinking about? And why is he so disproportionately large? What is he going to do about the next dying patient, the one about to be laid at his feet? Why are there no boundaries between the unfolding (and usually private) medical care scene and the larger social world? Responses to questions such as these will likely emerge as students begin to assume the stance of healers and sufferers in their tableau vivant of this painting.

FIGURE 4



*Corporate Decision, by George Tooker. Reprinted with permission.*

George Tooker presents a calmer scene of death, yet one with striking internal contrasts, in his work "Corporate Decision" (see Figure 4). The foreground of this painting is dominated by a "Pieta"-type group. One woman hovers over what appears to be a dying man while another comforts a small child. In the background, in harsh light, is a group of identical-looking stark-white men. Their faces are skeletal. All are in suits. They look very much like a tribunal. "Corporate Decision" was painted in 1983, the year DRGs (diagnosis related groups) were introduced into medicine. Although this painting is not a direct response to that event, it speaks volumes about the corporatization of medicine in particular, and the artist's general "loathing ... for decisions based on 'operating conveniences' without regard for the needs of the spirit."[13] Reflecting his symbolic realist style, Tooker explains that he paints "reality impressed on the mind so hard that it returns as a dream."[13]

What are we to make of the depersonalized distance between the stiffly identical "providers" and the sufferers bent in on themselves? Might the bureaucrats that Tooker portrays in such a harsh light be suffering too? Might they be suffering over the loss of what brought them to medicine in the first place?

I also wonder about the angst evident in the surgeon in the AltaVista advertisement (see Figure 5). Here the physician seems to have been vanquished by death. He sits amid the litter of the technological battlefield. The advertiser implies that now may be the time to "search" for answers about life and death. Has this physician just begun his search for understanding and meaning? Does each death a physician witnesses call for deep reflection? What kind of strength does it take to fight the technological imperative? To revise the interventionist adage as follows: "Don't just do something, stand there"?

Daniel Callahan, philosopher and former director of the Hastings Center in Garrison, New York, has written eloquently about the need to change medical practice at the end of life.[14] He and others bemoan the status of death in contemporary society, which has equated it to an enemy. Callahan decries the widespread belief that our scientific knowledge will eventually defeat death—or at least wear it down one disease at a time, to the point that death becomes more of a nuisance than what it is: an existential exclamation point.[14] Arguing against the false sense of security in the power of science and technological progress, he proposes that we endeavor to recapture our mortality.

Callahan calls not for Aries' tame death, but for a peaceful one marked by an acceptance and a realization that our control over fate ceases at some point; a consciousness or self-awareness that one is dying; "a death marked by self-possession ... [where] one is alert, awake, not merely machine-sustained or without mental func-

FIGURE 5




ALTAVISTA CO.

*AltaVista asks: "Is there an afterlife?"*

tioning"[14] and a death in public, a time for family and friends to be near. Recapturing a sense of mortality as part of our students' (and our own) everyday lives will remind them (and us) that death is biologically inevitable. No matter the sophistication of our technology, no matter the faith we put in scientific progress, no matter our social status—we all die. This last point, by the way, is the *momento mori* message of the Danse Macabre genre of art.

Artists and philosophers are not the only ones reminding medical students about the limitations the students must live with both professionally and personally. Theologian Stanley Hauerwas stresses that physicians need to have a shared presence of suffering with their patients and also remember that "medicine as a profession carries the wisdom of our finitude."[11] He explains further that hospitals are symbols that we will not abandon the "ill simply because they are suffering the sign of that finitude."[11] Unfortunately, very few medical school settings encourage students to reflect on the "unusual, threatening, or mystifying perceptions and experiences they have in the world of medicine."[15] A recent survey found that only 11 percent of U.S. medical schools offer full-term courses on care of the dying.[1]

Could our encouragement of students to take a stance in their medical lives that includes a strong reckoning of mortality lead them to work with patients and families in ways that help make death peaceful? Recently, Callahan suggested that "physicians ought to be as anxious to avoid a poor death as to extend life."[16] Getting students to the bedside of the dying, in imagination and eventually in reality, is an important first step toward that goal. **MM**

*Martin Kohn is director of the Human Values in Medicine program and associate professor, Behavioral Sciences, Northeastern Ohio Universities College of Medicine. He also co-directs, with Carol Donley of Hiram College, the Center for Literature, Medicine, and the Health Care Professions.*

REFERENCES

1. The Robert Wood Johnson Foundation. Executive Summary, National Consensus Conference on Medical Education for Care Near the End of Life 1997.
2. Krakauer EL. Attending to dying: limitations of medical technology (A resident's perspective). In Spiro HM, McCrea Curnen MG, Wandel LP (eds). Facing death. New Haven, CT: Yale University Press, 1996.
3. Verghese A. My own country. New York: Vintage Books, 1994.
4. Bauman Z. Mortality, immortality and other life strategies. Stanford, CA: Stanford University Press, 1992.
5. Hall ET. The dance of life: the other dimension of time. Garden City, NY: Anchor Press/Doubleday, 1983.
6. O'Conner MC. The art of dying well. New York: Columbia University Press, 1942.
7. Binsky P. Medieval death: ritual and representation. Ithaca, NY: Cornell University Press, 1996.
8. Comper FMM (ed). The book of the craft of dying and other English tracts concerning death. London: Longmans, Green and Co., 1917. (Reprint edition by Arno Press, a New York Times Company, New York, 1977 by permission of Longmans Group Ltd.)
9. Harmon L. Fragments on the deathwatch. Boston: Beacon Press, 1998.
10. Imhof AE. An Ars Moriendi for our time: to live a fulfilled life; to die a peaceful death. In Spiro HM, McCrea Curnen MG, Wandel LP (eds). Facing death. New Haven: Yale University Press, 1996.
11. Hauerwas S. Suffering presence. Notre Dame, Indiana: University of Notre Dame Press, 1986.
12. Spence WR. Perez on medicine. Waco, Texas: WRS Publishing, a division of WRS Group, Inc., 1993.
13. Garver TH. George Tooker. San Francisco: Pomegranate, 1992.
14. Callahan D. The troubled dream of life. New York: Simon and Schuster, 1993.
15. Barnard D, Quill T, Hafferty FW, Arnold R, et al. Preparing the ground: contributions of the preclinical years to medical education for care near the end of life. Acad Med 1999; 74(5):499-505.
16. Callahan D. Death and the research imperative. N Engl J Med, 2000;342(9):654-56.




# Regions Hospital Direct

## 24-Hour Physician-to-Physician Hotline 1-888-588-9855

At Regions Hospital, we provide physicians with new and better ways to care for patients. Regions Hospital Direct is a toll-free physician hotline that gives doctors throughout Minnesota and the region 24-hour access to physician consultation, information and referral services. Whether you need to consult a specialist, check on a patient's progress, transfer a patient to the Emergency Center or initiate admission of a patient, you're just a phone call away with Regions Hospital Direct. It's one more way Regions Hospital works with physicians to be the hospital of choice in the community.

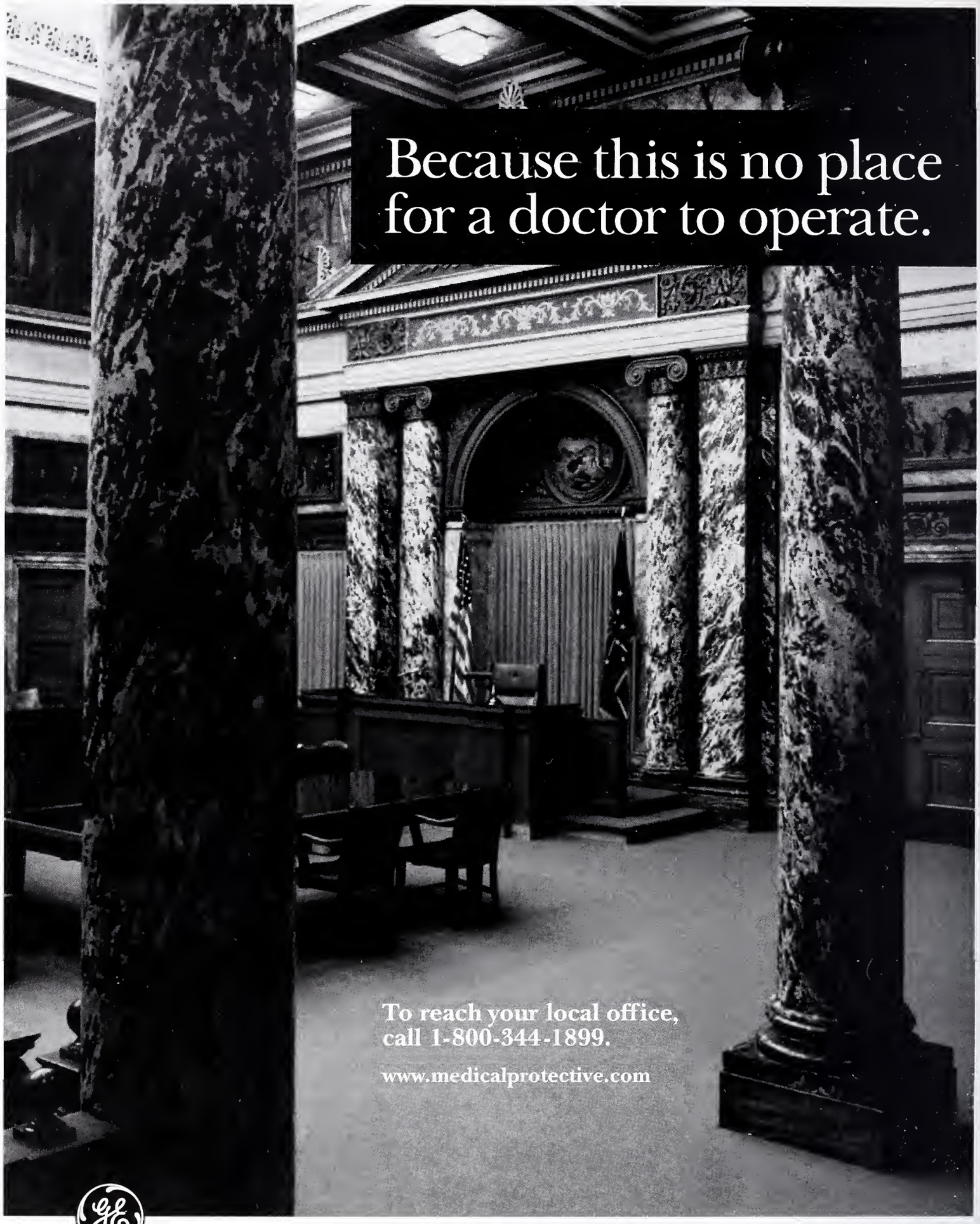



*Building To Be The Best*

Regions Hospital®

640 Jackson Street, St. Paul, MN

© 2000 HealthPartners, Inc., Minneapolis, MN




***The Medical Protective Company®***

GOLD CORPORATE AFFILIATE
MGMA
PROGRAM UNDERWRITER

## ANNOUNCEMENTS



### Meiches Attends Leadership Program

Robert Meiches, M.D., MMA board chair, attended the AMA Glaxo Wellcome Emerging Leaders Development Program on March 25–28 in Miami Beach, Florida. Meiches was selected for this honor from a large applicant pool.

### Take MMA Survey on Pharmaceutical Issues

The MMA asks you to assist its Pharmaceutical Issues Task Force by completing a survey on topics related to pharmaceuticals, drug formularies, and direct-to-consumer advertising.

The survey is anonymous. Collected data will be displayed only in aggregate form to depict the current status of pharmaceutical issues in Minnesota.

To complete the survey online, go to the "What's New" link on the MMA Web site at www.mnmed.org. To obtain a hard copy of the survey form, call Pat Hanson at 612/362-3738 or 800/342-5662.

# Provider Tax Proposal Stuck in Legislative Gridlock

Disagreement over the amount of money available for tax relief and increased spending kept the Legislature from adjourning as planned on April 19. As *News and Views* went to press, House and Senate leaders were still trying to achieve consensus on these issues. Once they reach an agreement, the Legislature may be able to conclude business within three days. May 22 is the constitutional deadline by which legislators must finish their work.

### House Proposes Provider Tax Time Out

As part of tax relief negotiations, House leaders are offering a proposal to suspend collection of the provider tax for two years, beginning July 1, 2000. The tax would revert to 2 percent beginning July 1, 2003. This is an attempt to begin eliminating the provider tax without addressing all the budget repercussions at this time. The Senate has not yet responded to this proposal.

The MMA sent electronic alerts to members, asking them to encourage their state senators to include the two-year sick tax moratorium in the omnibus tax bill.

### MMA Urged Governor to Veto Informed Consent Bill

Gov. Jesse Ventura vetoed on April 14 a bill that would have mandated a rigid, defined informed consent process, including a 24-hour waiting period, for women seeking abortions.

In a letter to Ventura, the MMA said it firmly believes that details of informed consent for the practice of medicine, which include exchange of information between a physician and patient, must not be legislated. Physicians must be allowed to take into account the circumstances of each pregnancy, including the possibility of rape, incest, or fetal anomaly, when treating patients.

The bill also called for civil penalties for physicians deviating from its directives and would have established contempt fines up to $10,000 for physicians or clinics.

# *JAMA* Report Reflects Flawed System

Responding to an April 12 report in the *Journal of the American Medical Association*, Blanton Bessinger, M.D., Minnesota Medical Association president-elect, and Minnesota Attorney General Mike Hatch appeared on "Good Day Minnesota" (KMSP TV-Channel 9) on April 13 to discuss why physicians might overstate patient needs to HMOs.

The report, which is based on a 1998 survey by members of the Institute for Ethics at the American Medical Association in Chicago, said nearly two in five physicians admitted changing diagnoses, reporting false symptoms, or exaggerating the severity of patients' conditions at least occasionally in order to get coverage for medical care they deemed necessary.

Bessinger said he is appalled by how many physicians admitted embellishing treatment needs, but he knows why the deception occurs. "This study high

*REPORT continued on page 35*

# VIEWPOINT

**John M. Van Etta, M.D.**
*MMA President*



## MMA Teamwork Leads to Safe Landing

Recently, a sobering event drove home the importance of teamwork. Returning from the AMA Leadership Conference, Blanton Bessinger, M.D., and his wife, as well as my wife, my daughter, and I, were seated by the plane's exit windows. One hour before landing, the pilot announced we would be making an emergency landing; the landing gear was not moving properly. Suddenly the MMA presidential families were called into action.

The flight crew taught us how to lift out the 44-pound exit doors and throw them over the wings. They told us that if the plane crashed and we didn't see flames, it would be our job to remove the exit doors and help people to safety. I reviewed the instructions over and over in my mind as we continued our descent. The runway was closed and I could see the flashing lights of the emergency vehicles. We knew the crew would try to deploy the wheels on the nose of the plane, but if this plan didn't work, we would be called upon to help rescue the other passengers. Our colleague and CEO Paul Sanders, M.D., and his wife were also on board. It was a frightening few minutes. Fortunately, the alternative plan worked and we landed without further incident. I still wake up in the night recalling exactly how to remove an airplane door.

We never know when we'll be asked to help in a team effort. It is seldom dramatic or life threatening, but it can be important. During this legislative session, many of you testified at the Legislature, wrote letters, and talked to legislators. When you were called upon to help, you were ready to respond.

Thanks to our MMA leaders, members, and staff, the 2000 legislative session has been a success. We introduced the prompt pay bill that has been signed into law. This legislation creates a standard definition of a "clean claim," based on the Medicare definition. It requires health plans and third-party administrators to pay clean claims within 30 days or be subject to interest penalties of 1.5 percent per month.

We won passage of legislation banning contract stacking between categories of health care coverage. The governor has signed this bill, which prohibits health plans from requiring physicians to participate in other categories of health care coverage as a condition of belonging to one provider network. For instance, if physicians want to participate in a plan's health care network, they cannot be required to participate in the no-fault auto category or the workers' compensation category as well. This is a first step toward banning all contract stacking.

As *News and Views* went to press, we were trying to persuade the conferees on the omnibus tax bill to use some of the surplus state funds to begin phasing out the sick tax. We strongly support a two-year moratorium on collecting the tax, which was proposed as part of an overall spending compromise. This would move us closer to permanently eliminating the sick tax.

We blocked legislation that would have weakened Minnesota's tort reform laws designed to reduce the number of frivolous lawsuits. The MMA successfully opposed a bill that would have given the plaintiff in a medical malpractice case an additional 60 days to correct any defects in an expert witness affidavit.

Thank you to all who supported our efforts. Because of MMA teamwork, we'll end the legislative session with another safe landing. ■

*REPORT from page 33*

lights the tension between physicians and payers," he said. "When a doctor cannot stay within the confines of what an HMO will pay for, we still have ethical and legal obligations to our patients," he said.

"The situation we have is based on 'cookbook medicine,'" said Hatch. "Physicians receive extensive training to diagnose complicated medical conditions, and HMOs say, 'Give us a number.' Life is not simple. Patients and diseases are not numbers," he said.

The report found doctors were not bending the rules for personal gain. Manipulation of reimbursement rules was most common in cases in which individual physicians could not provide free or reduced-cost care, such as hospitalization. Physicians' financial situations—how they were paid, whether they were making less money than in the previous year, how their practices were organized, and whether they were specialists—seemed to have little bearing on decisions to embellish treatment needs.

More than half the physicians (54 percent) who admitted manipulating reimbursement rules said they were doing so more frequently than they were five years ago, according to the report. The questionnaire was completed by 720 doctors out of a nationwide random sample of 1,124.

A researcher for the Institute for Ethics said many physicians and their patients don't believe current coverage decisions are reasonable and don't feel bound by them. They feel that manipulating the system is the only way to provide high-quality care.

Michael Scandrett, executive director of the Minnesota Council of Health Plans, did not attend the interview but faxed a statement. He explained that health plan denials are rare, but when coverage is denied, patients and their doctors have several options for obtaining an exception or an alternative treatment.

Scandrett's statement also said lying is not the answer. "It is unethical and results in an inaccurate medical record that may later result in harm to the patient. We believe lying by Minnesota doctors is rare, but we are committed to working with the physician community to find a solution to this problem," he said.

Recent moves by the managed care industry to give doctors more control over health care decisions could decrease the incidence of deception, according to the study's researchers.

Other developments, such as Aetna U.S. Healthcare's settling a lawsuit brought by the state of Texas with an agreement not to reward or fine doctors for limiting patients' health care, could also set precedents for HMOs, according to Hatch.

The current system is a "head-on collision," said Bessinger. "Physicians, who are sworn to be advocates for patients, are also caught up in the universal effort to control costs," he said.

# Lead It Be: New Guidelines Will Help Physicians Identify Kids at Risk for Poisoning

In front of a remodeled home day care on Park Avenue in Minneapolis, Commissioner of Health Jan Malcolm met on March 31 with members of public health agencies, legislators, physicians, community leaders, members of the media, and a number of weary children who forfeited naps to see what was going on in their yard.

"We are here today to address some good news," Malcolm told the crowd. She unveiled a new set of screening guidelines physicians can use to identify children at risk for lead paint poisoning.

"The work group that produced the new lead screening guidelines included people with experience and expertise in a variety of areas, including housing, health care, and health policy," said Malcolm. "The Minnesota Medical Association played an active role in developing the guidelines, which have been endorsed both by the MMA and by the Minnesota Chapter of the American Academy of Pediatrics," she said.

The number of reported lead poisoning cases in Minnesota has declined in recent years—from approximately 4,000 in 1995 to 2,500 in 1998, but state health officials believe those figures may not reflect the full extent of the problem, said Malcolm. She attributes much of the progress to locally organized lead clean-up efforts in older housing.

Samuel Hall, M.D., chair of the MMA Environmental Health and Occupational Medicine Subcommittee, spoke to attendees about the importance of the new guidelines. "We now know that levels as low as 10 micrograms per deciliter can affect a child's health and develop-

*LEAD continued on page 36*

# County-Based Medicaid Plan Sought to Improve Care

In the mainly rural counties of Morrison, Todd, Crow Wing, Cass, and Wadena, most health maintenance organizations have withdrawn from the often unprofitable Medicaid business.

Slipping back into a fee-for-service system in which Medicaid recipients find their own way might have been the simplest solution, but providers and public agencies in these counties saw an opportunity to do something better for Minnesota's poorest citizens.

State legislation passed in 1997 allows county-based purchasing of Medicaid health care services for Medicaid enrollees. Participating providers and agencies then assume the role of a health maintenance organization and coordinate medical and social services for enrollees.

Since this legislation was passed, 32 of Minnesota's 87 counties have been involved in efforts to pursue county-based purchasing. The Essential Health Plan was the most advanced of these initiatives.

Unlike traditional HMOs, the Essential Health Plan was designed specifically for the Medicaid population, with features to ensure that rural recipients would not fall through the cracks. It also encompassed some types of care previously ignored by most carriers in rural areas, according to Nick Bernier, M.D., who would have been one of the plan's providers. "The plan extensively addressed dental care and coordinated children's mental health services as part of a vision for improving care for the Medicaid population," said Bernier.

With countless hours of work and $700,000 in expenditures behind them, the founders of the Essential Health Plan were poised to make quality care more accessible to Medicaid recipients this July. Then signs of trouble began to appear.

A final financial projection looked shaky, adding to concerns about the unique project's feasibility. Even more serious was the Health Care Financing Administration's (HCFA) hesitation to approve the plan, mainly because of a federal Medicaid requirement that enrollees are offered a choice of health plans.

State and federal officials disagreed about whether a "rural exception" to a choice of health plans included in the 1997 Balanced Budget Act allowed the Minnesota Department of Human Services to mandate enrollment into the program. Intervention efforts by legislators, state agencies, and the Minnesota Medical Association failed to sway HCFA officials. With an impending deadline and little encouragement to continue the project, Essential Health Plan Board members held a March 24 meeting at which they decided to disband.

"We're disappointed," said Bernier. "There aren't many health plans available to serve this population. A lot of work went into creating this plan, which would have had the benefit of local sensitivities."

LOOKING FOR LOCUM TENENS?

LOOK FOR THE FRIENDLY DOCTOR



Whitesell
Medical Locums, Ltd.

Benefits for the Hospital/Clinic:
- Highly qualified physicians that are B.E./B.C.
- Fill your positions during illness, vacation and understaffing.
- Prevent loss of revenue.
- We handle all administrative details.
- Competitive rates

Benefits for the Physician:
- Experience a complete range of practice styles.
- Fully paid malpractice insurance
- Explore options or new services before making permanent decisions.
- A chance for senior physicians who no longer desire the responsibility of running a practice to stay clinically active.

Metro 763-682-5906
Toll Free 800-876-7171
Fax 763-684-0243
Web www.mnlocums.com

*LEAD from page 35*

ment in subtle but critically important ways. The consequences can last a lifetime," he said.

The guidelines list factors that place children at increased risk for lead exposure, including residing within Minneapolis or St. Paul city limits; living or spending significant time in a building constructed before 1950 or a building constructed before 1978 that has recently been damaged or renovated; or having a sibling, playmate, or housemate previously diagnosed with elevated blood lead. Routine lead screening is recommended for high-risk children at ages one and two, and up to age six for those who have never been tested.

Copies of the guidelines were mailed to 3,000 Minnesota physicians in March.

"The work group and the guidelines it produced are a health care success story," said Hall. "We look forward to working with our colleagues in the health care community to ensure these efforts have the impact they should," she said.

View the guidelines on the Department of Health Web site at: www.health.state.mn.us/divs/eh/aialr/lead/blsg4mn.PDF.

# NEWS DIGEST

*People and places making medical news*



## People & Places

The University Children's Foundation at the University of Minnesota gave Anna Petryk, M.D., this year's UCF Scholar Award. The annual award, which comes with a $50,000 research grant, recognizes up-and-coming pediatric researchers. Petryk, an instructor in the pediatric department's division of endocrinology, is investigating the role of a protein involved in early embryonic development and its relationship to human disease.

Noel R. Peterson, M.D., was elected president and CEO of Olmsted Medical Center in Rochester, succeeding G. Richard Geier Jr., M.D. Peterson, a urologist, has served as the center's medical director since 1994. He is treasurer of the Minnesota Medical Association and serves on the board of directors of the Greater Rochester Area University Center.

Gov. Jesse Ventura appointed Lyle Torguson, M.D., of Plymouth to the State Advisory Council on Mental Health, a body that advises the governor, Legislature, and state agencies about mental health policy, programs, and services. Torguson is a family physician at North Memorial Health Care's Ridgedale Medical Clinic.

HealthEast Care System named Thomas Lundsten, M.D., medical director of its St. John's Hospital in Maplewood. Lundsten has been a family practice physician at East Metro Family Practice/Maryland Clinic since 1985 and department head of HealthEast's family practice section. He replaces Craig Svendsen, M.D., medical director of the new HealthEast/Children's Hospitals and Clinics' Woodwinds Health Campus in Woodbury.

Allina Health System's board has chosen David Strand, 43, president of Medica, the company's health plan division, to succeed Gordon Sprenger as Allina's CEO. Sprenger, 62, reportedly plans to retire in mid- 2001. Allina includes Abbott Northwestern Hospital in Minneapolis and United Hospital in St. Paul.

Former state Attorney General Hubert H. "Skip" Humphrey III was named a senior fellow at the University of Minnesota School of Public Health. Humphrey will teach policy, law, and public health; advise graduate students; and collaborate with faculty to develop new programs.

Glenace Edwall, Ph.D., Psy.D., was appointed director of children's mental health at the Minnesota Department of Human Services. A psychologist and professor, Edwall most recently was director of the Fraser Child and Family Center in Minneapolis. She has also held management positions at Minneapolis Children's Hospitals and Clinics and the University of Minnesota Hospital and Clinic, and has taught at the University of Minnesota, Baylor University, and other schools. ■


**MEDICAL DIRECTOR**

Director needed for a progressive multidisciplinary medical clinic.

Great opportunity to become a medical director and regain control to practice real medicine the way doctors used to.

Start your family practice in this established, independent and growing medical clinic.

- *Located just 20 minutes S.W. of the twin cities*
- *Ideal family oriented community*
- *Work part/full time*
- *Set hours on Monday through Friday, no weekends*
- *Minimal on-call*

Don't miss this opportunity to join a progressive integrative clinic.

**If you are interested in joining our expanding health care team call Dr. David Copp or Mary Copp at (612) 492-2225 or fax your C.V. to (612) 492-6470.**



# Socioeconomics

### Health Plans Report Fourth Consecutive Year of Losses

The overall operating loss for Minnesota's health plans was $18.5 million in 1999, down from a $58.3 million loss in 1998, according to an annual report by the Minnesota Council of Health Plans. With investment gains and reserve funds, however, the industry had a net gain of $11.8 million last year. Premiums rose an average of 9 percent, medical costs increased 6.9 percent, and enrollment increased 1.9 percent. Minnetonka-based Medica saw an operating loss of $13.2 million, Bloomington-based HealthPartners had an operating loss of $1.5 million, and the BluePlus HMO of Blue Cross and Blue Shield of Minnesota reported an operating gain of $2.3 million.

### HCMC Gains Children's Hospital Status

Hennepin County Medical Center (HCMC) was approved as a National Association of Children's Hospitals and Related Institutions (NACHRI) member in April. Such membership signifies that the center meets the standards to be a children's hospital and gives HCMC access to regional and national children's health data for comparison purposes.

### MCHA Seeks Higher Premium Rates

The Minnesota Comprehensive Health Association board has asked Minnesota Commerce Commissioner Jim Bernstein to approve a 13 to 19 percent increase in premium rates for next year. The association, which provides coverage for hard-to-insure Minnesotans, blames the rate increase on higher health care costs and fewer members. The Commerce Department has indicated it may scale back the rate increase, which follows last year's 8 to 19 percent increase.

### State Supreme Court Asked to Rule on Blue Cross Anti-Smoking Plan

The Department of Commerce asked the Minnesota Supreme Court to review a February 29 appellate court's decision that allows Blue Cross and Blue Shield of Minnesota to spend tobacco settlement funds on anti-smoking programs rather than on refunds to policyholders.

The Commerce Department argues that the appeals court exceeded its authority by overruling the department's decision about the Blue Cross spending plan. Blue Cross argues that an investment in anti-tobacco programs would reduce future health care costs.

### CentraCare Partners with Life Link III for Helicopter Service

CentraCare Health System in St. Cloud will be able to offer faster service to patients needing emergency transport to the hospital thanks to its purchase of a one-sixth part- ⇨



# Research & Innovations

### Prophylactic Mastectomy Reduces Breast Cancer Risk in Women with Gene Mutations

The Mayo Clinic team that showed that breast removal reduces breast cancer risk among women with a family history of the disease has found that the procedure also reduces risk for women who carry mutations in the genes that regulate cell growth. Researchers at the Mayo Clinic's Cancer Center, led by oncologist Lynn Hartmann, M.D., identified 28 women who had undergone prophylactic mastectomies and carried mutations in BRCA1 and BRCA2. None of the 28 developed breast cancer during the 15 years after surgery, though ordinarily, about 11 of them would have been expected to develop the disease. The study was presented at the annual meeting of the American Association for Cancer Research in San Francisco.

### Mayo Surgeons Perform State's First 'Domino Transplant'

In a rare "domino transplant," Mayo Clinic surgeons removed the liver of a 57-year-old Michigan man on April 11 and transplanted it into a 57-year-old South Dakota woman, then gave the man a new liver, heart, and kidney. Although the procedure has been performed in Europe since 1988, it had never been performed in Minnesota. The man suffered from familial amyloidosis, a disease that causes the liver to produce a protein that destroys the heart and kidneys but leaves the liver unharmed. It will be decades before the liver causes noticeable tissue damage in the recipient. ■

nership in Life Link III. The St. Paul company, which has two helicopters based at the St. Paul Downtown Airport, will base a third helicopter at St. Cloud Hospital. The other five partners are Allina Hospitals and Clinics, Children's Hospitals and Clinics, Fairview Health Services, Hennepin County Medical Center, and HealthPartners' Regions Hospital.

### MDH Awards Anti-Tobacco Grants

The Minnesota Department of Health awarded $3 million in grants for 13 projects to reduce tobacco use among young people. Statewide tobacco use prevention grants were made to the Association for Non-Smokers of Minnesota, the Minnesota Department of Children, Families and Learning, the Illusion Theater, Allina Health System, and the Minnesota Council of Churches. Several other organizations received grants to support program development.


**RIVERWOOD**
HEALTHCARE CENTER

Riverwood HealthCare Center is a growing, progressive rural health care facility, located in the lakes vacation area of central Minnesota. We are currently recruiting for two

**FAMILY PRACTICE PHYSICIANS**

Join our professional staff of eight physicians, four nurse practitioners, and enjoy the support of a dedicated staff of health care professionals in continuing our forty year tradition of providing high quality professional health care to the year round and seasonal residents of our area.

- Beautiful rural community on the Mississippi River
- Access to multiple recreational activities
- Within two hours of the metro communities of Duluth, Minneapolis, and St. Paul
- Excellent local educational facilities
- Competitive salary and benefits package with signing bonus & loan repayment option & moving allowance.

For more detailed information, please contact Teresa in Human Resources at:
phone: 218-927-5587 toll free: 888-900-3934
fax: 218-927-5575
email: tjacobson@RHHC.sisunet.org



**CentraCare Clinic** *is a progressive and growing 108-physician multi-specialty clinic with 9 Central Minnesota sites. Our clinics offer a comprehensive income and benefits package and are conveniently located between the Twin Cities and prime Minnesota lakes area. Central Minnesota offers an outstanding lifestyle with quality schools and abundant recreational activities. CentraCare Clinic is currently recruiting for the following locations:*

**CENTRACARE Clinic**
River Campus

*Join an exceptional 65-physician specialty clinic which currently has openings in the following specialties:*

- Allergy
- Internal Medicine *St. Cloud/Little Falls*
- Dermatology
- Neurology
- Neurosurgery
- Gastroenterology
- Pediatric Intensivist
- Infectious Disease
- Rheumatology
- Non-Interventional Cardiology

**CENTRACARE Clinic**
Heartland

*Join an experienced 6-physician clinic with an opening in:*

- Family Practice Physician who practices Obstetrics

**CENTRACARE Clinic**
Women & Children's Center

*Join an exceptional 21-physician clinic specializing in pediatrics and obstetrics/gynecology which currently has openings in the following specialties:*

- Allergy
- Pediatrics
- Obstetrics/Gynecology
- Obstetrics specializing in Endocrinology & Reproductive Health

*For further information, please call or write:*

*Karla Donlin*
*Kristine Cunningham*
*Physician Recruiters*

*1406 Sixth Avenue North*
*St. Cloud, MN 56303*
***1-800-835-6652***

*Not a health care profession shortage area.*

**CENTRACARE Clinic**

# Rates, Trends & Data



### Campuses Report Increase in Binge Drinking, Teetotaling

The rate of frequent binge drinking on college campuses is rising, as is the rate of collegiate teetotaling, according to a **Harvard School of Public Health** study. The survey of 14,000 students at colleges in 19 states found the number of men who drink five or more consecutive drinks and women who consume four or more consecutive drinks was 22.7 percent of the student population in 1999 compared with 19.8 percent in 1993. The percentage of nondrinkers rose to 19.2 percent in 1999 from 15.4 percent in 1993. **University of Minnesota** surveys of its undergraduates in 1998 and 1999 show that a third had consumed five or more drinks in one sitting in the two weeks prior to questioning, and 75 percent had had an alcoholic drink in the last month.

### Consumers Give Minnesota Medicaid High Marks

Minnesota health plans scored above the national average in most categories of consumer satisfaction in a recent survey of Medicaid enrollees released by the **Department of Human Services** (DHS) and the **Minnesota Health Data Institute**. The report compares Minnesota Medicaid enrollees with 28,240 Medicaid enrollees in 77 health plans across the nation that participated in the same survey. The report also compares four Minnesota programs administered by DHS: the Prepaid Medical Assistance Program , MinnesotaCare, MA fee-for-service, and Minnesota Senior Health Options. Highest scores (75 percent positive response) were for "getting care that is needed," while lowest scores were for long waits in the doctor's office.

### U.S. Birth Rate on the Rise

The U.S. birth rate rose 2 percent in 1998 after a seven-year decline, according to a **National Center for Health Statistics** report. The overall fertility rate for 1998 was 66 births per 1,000 women, up 1 percent from 1997. Single mothers accounted for nearly half the births, but the number of births to teenagers was down. The report noted a 2 percent decline (from 1997) in the number of women who smoke during pregnancy and an increase in the number of women seeking prenatal care in the first trimester.

### Report Links Illness to Life Circumstances

City dwellers are sick more often than country dwellers; the unemployed get sick more than the employed; and the poor are sick more than the rich. Data compiled by the **Centers for Disease Control and Prevention** from surveys of adults from 1993 through 1997 show the average number of unhealthy days a month is 5.3 for the general population but as many as 20 days a month for the unemployed. People living in counties of more than a million residents were unhealthy 5.6 days a month, while those in counties of .5 to 1 million reported feeling sick 5.1 days a month.

MULTICARE ASSOCIATES OF THE TWIN CITIES

Multicare Associates of the Twin Cities, a multispecialty/multilocation clinic, located in the northern suburbs of Minneapolis/St. Paul, has available positions for BC/BE physicians in the following departments:

**Family Practice**

**OB/GYN**

Excellent salary/benefits package includes paid insurance, flexible benefits plan, 401K, profit sharing, continuing medical education. Shareholder status potential after one year.

Contact Jeannine Schlottman
Administrator
7675 Madison St. NE
Fridley, MN 55432
612/785-3338
www.multicare-assoc.com

**Minnesota Opportunities**

Delacore Resources, also known as *"The Minnesota Recruiter,"* has opportunities in Minnesota for the following types of physicians:

- **Dermatology**
- **Emergency Medicine**
- **Family Practice**
- **General Surgery**
- **Internal Medicine**
- **OB/GYN**
- **Orthopedic Surgery**
- **Pediatrics**
- **Psychiatry**

A detailed practice profile is available, or visit our website at **www.mnrecruiter.com**

*Contact The Minnesota Recruiter confidentially at*

**Delacore Resources**
**1-800-967-2711**
**FAX (320) 587-7252**
**delacore@hutchtel.net**

# GROUP PURCHASING



Brought to you by a partnership of

## Minnesota Medical Business Resources and Triium, Inc.

### Product and Service Coverage

- Office Supplies and Furniture
- Office Equipment
  Copiers, facsimiles, scanners, and more
- Medical Supplies
- Medical Equipment and Equipment Repair
- Employee Recruitment Services
- Individual Insurance Programs
  Life, health, long-term care, disability
- Employer-Sponsored Retirement Plans
- Printing Services
  Forms, statements, mailing services, and more
- Color-Coded Record Systems
- Promotional Merchandise
- Collection Services
- Cellular Phone Equipment and Air Time
- Auto Leasing and Purchasing Services
- Payor Reimbursement
  Auditing & Consulting
- Credit Union Services
- Secured Records Destruction
- Courier Services
- Payroll Processing Services

### Group Purchasing Advantages

Group Purchasing provides customers with a comprehensive purchasing program encompassing a large variety of services and products that supports physician practices' outsourcing needs. The goal of the program is to ensure customers receive excellent pricing and superior performance in all products and services offered.



### Group Purchasing Benefits

The Group Purchasing Program has experienced an average of **15%** savings for its customers. Other benefits of the Group Purchasing Program include negotiation and administration of supplier contracts, continual expansion of suppliers and services offered, volume and cost savings reporting for the individual practice, customer advocacy with suppliers, and dedicated, professional purchasing management.


TRIIUM, INC.

*Advancing Health Care with Data-Driven Solutions*

Call 612/797-0285 x109

e-mail: kmadsen@mspnetwork.com

internet: www.triium.com

MMBR

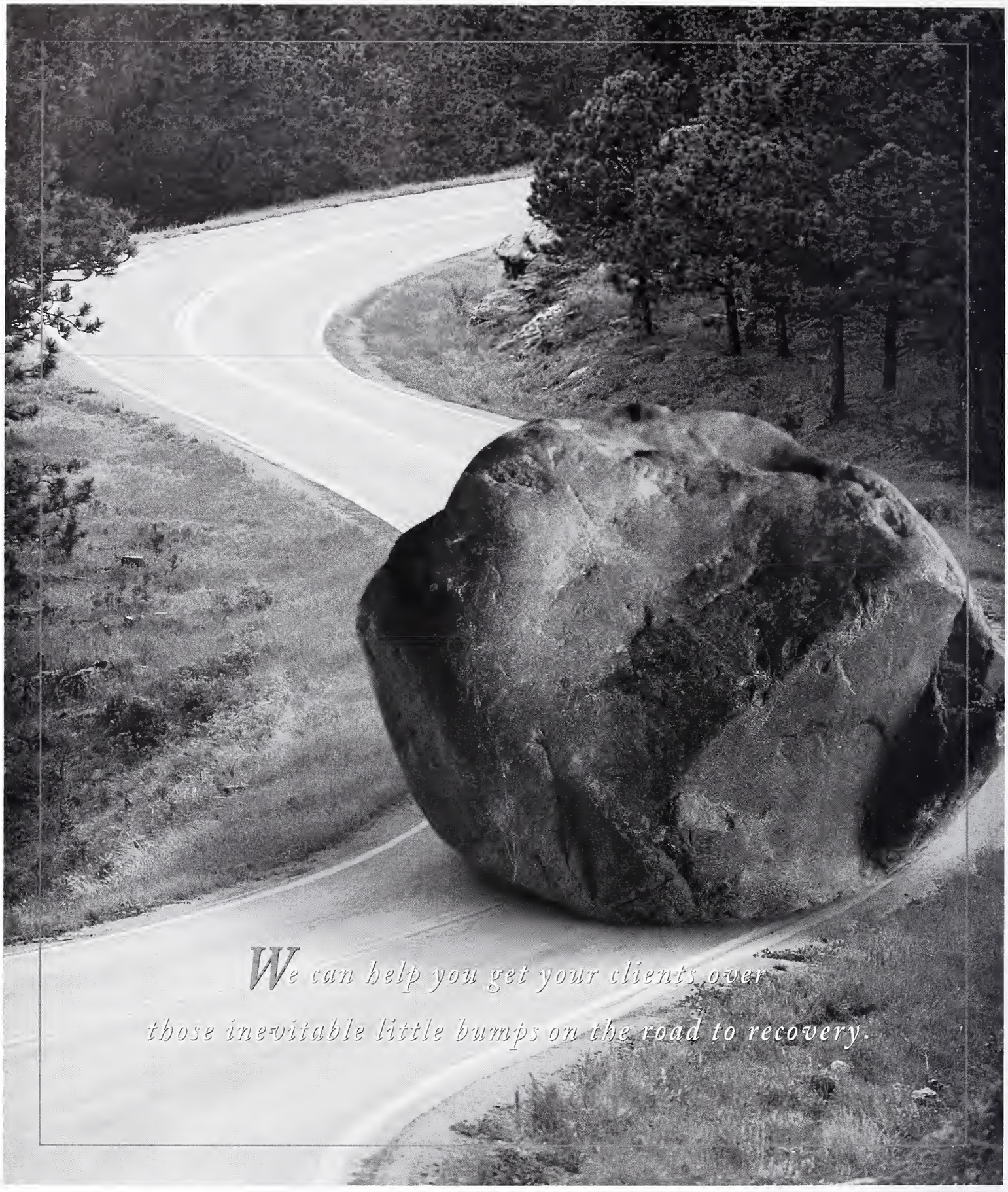
Minnesota Medical Business Resources Owned By MMA & HMS

**Minnesota Medical Business Resources**

Call 612/623-2860

e-mail: mmbr@mnmed.org

internet: mnmed.org/mmbr




To a person working toward recovery, every little bump, twist, turn or rough spot in the journey can seem insurmountable. They look to you for support and guidance. That's where Hazelden can help. Hazelden Foundation offers professionals easy access to a world of adolescent & adult chemical dependency information, support, services and training. Proven tools that can help you better ease your clients down the road. Hazelden. We can help. It's what we do. Centers in Minnesota, Florida, New York and Illinois. Reach us at 800-257-7800 or www.hazelden.org.

HAZELDEN®

©2000 Hazelden Foundation

# The Minnesota Partnership to Improve End-of-Life Care

*Minnesota health systems collaborate to improve end-of-life care.*

Edward Ratner, M.D., and Linda Norlander, R.N., M.S.

If you ask Minnesotans where they would like to receive care at the end of life and where they would like to die, most will answer in one word: "Home." But the gap between what people want and what people get is substantial. Nearly 80 percent of the deaths in the state occur in an institution, either a hospital or a nursing home. If you ask Minnesota physicians what they need to provide better care to patients at the end of life, their list ranges from more training in palliative care and symptom management to better financing for care. Clearly, more needs to be done to improve how people die in Minnesota.

End-of-life care is crucial to the well-being of our communities as well as individuals, says Robert Meiches, M.D., chair of the Minnesota Medical Association Board of Trustees. "It touches us both in our professional and our personal lives. Any efforts we make to improve our systems in caring for the dying will have a positive impact for all of us."

A new statewide effort, the Minnesota Partnership to Improve End-of-Life Care, intends to make such an impact. A coalition of health care organizations, the partnership is committed to removing barriers to good care for the dying. While the organization's founding partners, Allina Health System, Fairview Health Services, Blue Cross/Blue Shield, and HealthPartners, have individually pursued projects to improve end-of-life care, the partners expect to have a greater impact on public policy, education, and funding issues by collaborating.

## *Community-State Project*

The partnership recently received a $445,000 grant from the Robert Wood Johnson Foundation Community-State Project. Minnesota is one of 23 states receiving funding to identify problems, make recommendations, and build public support for practical policies, regulations, and guidelines that improve care for the dying.

"Addressing barriers to good end-of-life care on a public policy level is essential to removing them," says Barry Baines, M.D., associate medical director for HealthPartners and vice-chair of the Minnesota Partnership governing board. "We've identified three major problem areas: access to care, limited knowledge among health care providers, and limited resources for palliative care."

**Commission on end of life:** A priority for the Community-State Project is a new commission on end-of-life care, which it is sponsoring with the Minnesota Department of Health. The commission is made up of representatives from a variety of state organizations, including the Minnesota Medical Association, and is co-chaired by Baines and Commissioner of Health Jan Malcolm. Over the next 18 months, the commission will identify state issues, set priorities, and formulate recommendations concerning end-of-life care.

**Education:** A second initiative of the Community-State Project is educating practicing professionals, students, and the public. The partnership is working with the University of Minnesota Academic Health Center, for example, to ensure medical students, nursing students, and other health professional students receive experiential training in end-of-life care. Jane O'Brien, education specialist for the partnership, is working with staff from Allina, Fairview Health Services, and HealthPartners home care and hospice programs to develop training opportunities. "We want this to be a meaningful clinical experience, one where students learn usable skills in caring for the dying," says O'Brien.

**Reimbursement for care:** Reimbursement for end-of-life care is the Community-State Project's third big issue. Most health plans focus on reimbursement for acute and curative interventions. And although home-based hospice benefits are generally available for comprehensive interdisciplinary end-of-life care, hospice programs serve less than a quarter of the people who die in Minnesota, and typically for less than a month. The partnership is encouraging Minnesota-based insurers to cover end-of-life-care discussions among patients, families, and health care providers with the goal of expanding palliative care and assistance with end-of-life planning.

## *Communications Training*

In addition to the Robert Wood Johnson grant, the Minnesota Partnership has received a grant from Deva House, a hospice and respite home in St. Paul for terminally ill children and their families, and the Nathan Cummings Foundation to provide interdisciplinary training in communication at the end-of-life for practicing health care professionals. The training explores the FairCare model described in "Peaceful Dying" (Perseus Books, 1998) by Dan Tobin, M.D., a palliative care physician affiliated with the New York Veterans Affairs system. Of nearly 100 health professionals, including physicians, nurses, social workers, and chaplains, who completed the training in Minnesota last summer, 82 percent said they would strongly recommend the program for physicians. One Minnesota physician participant now uses this model, which has been adopted by several local health care organizations, for training family practice residents.

The Minnesota Partnership's promotion of communitywide improvement in end-of-life care has the potential for broad impact in Minnesota for years to come. MM

### *For More Information*

The Minnesota Partnership to Improve End-of-Life Care is housed at the Metropolitan Area Agency on Aging. For more information about the Minnesota Partnership, contact Linda Norlander or Edward Ratner at the partnership office, 651/641-8612.

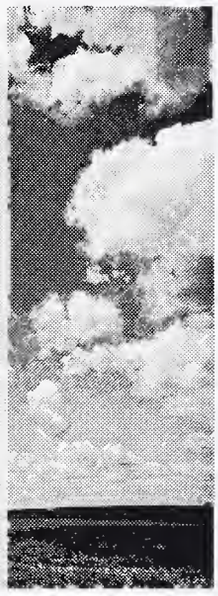
*Linda Norlander is the project director for the Community-State Project. Edward Ratner is principal investigator and assistant professor in the geriatrics program at the University of Minnesota Medical School.*





Dedicated

. . . to improving the health of our members and our community. That's HealthPartners' mission, and a quality we look for in the physicians we hire to care for our patients. We're a Minnesota-based, not-for-profit healthcare organization serving over 300,000 members throughout the Minneapolis/St. Paul metropolitan area.



**NEUROLOGISTS**

HealthPartners Department of Neurology is seeking energetic, full-time clinical Neurologists to join their growing group. Candidates should be BE/BC Neurologists preferably with fellowship training. The practice is wide range but special interests in headache, clinical neurophysiology, stroke, and/or movement disorders are ideal. The practice serves a diverse population and we are affiliated with the University of Minnesota providing in-hospital rotation for trainees at Regions Hospital. Research interests are encouraged and supported.

HealthPartners is one of the largest healthcare organizations in the Midwest. We offer an excellent salary, competitive benefits and a challenging work environment. For consideration, please send your CV to: HealthPartners, Physician Services, Attn: Lori Fake, P.O. Box 1309, Minneapolis, MN 55440 or fax your CV to (952) 883-5395. For more information, call: (952) 883-5337 or (800) 472-4695 or email: lori.m.fake@healthpartners.com. *EO/AA Employer.*

HealthPartners®
*Medical Group & Clinics*

*HealthPartners' mission is to improve the health of our members and our community*

# Tailoring the Message

*In physician-patient communication, patients' personal styles call for different approaches, especially when the news is bad.*

Judy Allen, M.A., and Susan A. Brock, Ph.D.

Listen to four patients responding to the question, "How would you prefer to have bad news broken to you?"

- "I just want the straightforward facts, no fuzzy prelude."
- "I need clear information delivered by someone who relates to me as a person."
- "I want to be seen as a whole person, not a disease, and to have my personal values taken into account."
- "I want to know that the doctor is competent, what options there are, and to be consulted as an equal."

But even when bad news is not the issue, what often lingers in patients' minds long after a medical visit is not *what* the doctor did—however skillful—but what was said and *how* it was said. One woman expressed her frustration over ineffective communication with an eminent cardiologist: "He may be the best practitioner around, but I couldn't understand a word he said about my husband's condition; he didn't try to help me to understand. When I said I hadn't grasped the information, he just told me the same thing in the same way. I left without understanding a thing."[1]

But effective physician-patient communication means more than just explaining medical information clearly. As one patient said,"[B]eing fully listened to and heard is so important, it feels as if it's part of the caring process."[1]

## *Physician-Patient Communication*

When physician-patient communication goes awry, there's more at stake than mere dissatisfaction. The patient may not follow through with necessary medical treatment or may fail to understand the proposed procedure. And when it comes to delivering bad news to a patient about a chronic condition or incurable disease, the results of poor communication can be particularly unfortunate.

In our search of the how-to literature on patient-practitioner communication, however, we found virtually no acknowledgment that communicating effectively with patients may require a practitioner to recognize differences in personal styles. To study the parameters of communication effectiveness in the medical context, we asked a small pilot group in the United Kingdom with known preferences on the Myers-Briggs Type Indicator (MBTI), an instrument based on Jung's typology of personality, to tell us how they would prefer to receive bad news.[2]

The crucial word in understanding people's communication style is "preference." It is clear from observation and from Jungian theory that all people use all the psychological preferences; they simply tend to prefer some to others. In any given situation, individuals may favor one mode of communication over another, although they tend to have certain enduring preferences.

To be effective with their patients, medical practitioners need to discover their own preferred style of communication first. Next, they need to determine what their patients prefer. Table 1 presents the four dimensions of type and their associated behavior cues. For example, on the Extraversion/Introversion dimension, a patient with a preference for Introversion may speak more softly and use shorter sentences, while one preferring Extraversion may interrupt and appear to be thinking aloud. In terms of Sensing/Intuition, a patient preferring the first may ask detailed questions about tests and results, while a patient preferring the second is more likely to ask about wider implications and need a range of possibilities.

In decision making, a patient preferring Thinking may appear to be "testing" the professional and to be focused on the content of the discussion rather than personal issues. Those preferring Feeling may incorporate the values and reactions of others as a high priority. Finally, patients in a Judging mode may want to reach decisions quickly—sometimes too quickly—while those with a Perceiving preference may demonstrate a desire for more information and options before coming to closure.

## *Four Stages of Physician-Patient Communication*

What transpires during physician-patient communication can be analyzed as a four-stage process (see Table 2).

Table 1

*The four-part framework: practical behavior cues for type mode*

| Extraversion | Introversion |
|---|---|
| **Source of Energy** | |
| *Talk it out* | *Think it through* |
| Rapid speech | Pauses while giving information |
| Appears to think aloud | Quieter voice volume |
| Interrupts | Shorter sentences–not run on |
| Louder volume of voice | |
| **Pays Attention to** | |
| **Sensing** | **Intuition** |
| *Specifics* | *Big picture* |
| Asks for step by step information or instruction | Asks for current and long-term implications |
| Asks "what," "how" questions | Asks "why " questions |
| Uses precise descriptions | Talks in general terms |
| **Basis for Decision Making** | |
| **Thinking** | **Feeling** |
| *Logical implications* | *Impact on people* |
| Appears to be "testing you" or your knowledge | Strives for harmony in interaction |
| Weighs the objective evidence | May talk about what they value |
| Not impressed that others have decided in favor | Asks how others acted/resolved the situation |
| Conversation follows a pattern of logic–"if this–then that" | Matters to them whether others have been taken into account |
| **Managing One's Life** | |
| **Judging** | **Perceiving** |
| *Joy of closure* | *Joy of processing* |
| Consistently early or on time for appointments–may be disturbed by clinic waiting time | May be late for appointments or forget the time during an appointment |
| Impatient with overly long descriptions or procedures | Conversation may move through many areas |
| The tone is "let's get it done" | May feel put off by closing a conversation before they're ready |
| May even decide prematurely and not want to listen to important considerations | No decision before its time–often at last minute or when absolutely necessary in their view |

Adapted from FLEX Care® 2000, Brock Associates, Minneapolis, MN 55436 USA, reprinted by permission.

### Stage 1: Initiating the interaction

At the start of a meeting between a patient and practitioner, the preferences that likely make the most difference are Extraversion and Introversion, which we call Talk it Out and Think it Through, respectively. Extraverts tend to talk first, while Introverts are more likely to listen. Patients are likely to be most at ease when they feel the practitioner is tuned in to them on this dimension.

### Stages 2 and 3: Investigating needs and suggesting action

As the interview proceeds, the patient will show a preference for how information is taken in and how decisions are made. Sensing and Intuition are the preferences used for taking in information. Some patients want facts and specifics. Others want to know the wider options and possibilities.

Thinking and Feeling are the preferences for making decisions. Patients with a preference for Thinking may first weigh the logical options, while those with a Feeling preference may first consider the personal impact of decisions. For each of the eight pairs of types described in Table 2, an individual prefers one but uses both; type is often a matter of priority. Preferences are not mutually exclusive.

### Stage 4: Next steps or closing

The next step is to move to closure. The Myers-Briggs Judging/Perceiving dimension is most evident as the interview ends. Some patients are eager to achieve closure, demonstrating a Joy of Closure. Others seem to enjoy gathering information and may delay closure, as they exercise a Joy of Processing.

Table 2

*Identifying behavior cues–what will I see?*

| Stages of Interaction | Client's Type Mode and Behavior Cues | |
|---|---|---|
| **STAGE 1** | **Talk it out (E-Extraversion)** | **Think it through (I-Introversion)** |
| **Meeting or Beginning an Interaction** | Higher energy and animation | More measured pace, pauses |
| | Faster pace | Quieter, more considered approach |
| | More words rather than fewer | Fewer words, rather than more |
| **STAGES 2 & 3** | **Specifics/Logical Options (ST-Sensing and Thinking)** | **Specifics/Impact on People (SF-Sensing and Feeling)** |
| | Wants factual information | Seeks a personalized service, a caring relationship |
| **Investigating Needs** | Gives/wants the facts in a logical order | Asks for facts rather than theory–examples of people like me |
| **and** | Practical "let's get the task done" approach | Wants a warm and friendly approach |
| | Interested in tried and trusted methods with data back-up | Interested in whatever worked for others |
| **Suggesting Action** | **Big Picture/Impact on People (NF-Intuition and Feeling)** | **Big Picture/Logical Options (NT-Intuition and Thinking)** |
| | Sees their situation as unique | Asks for logical options |
| | Needs to be valued as a person | Tests practitioner's competence |
| | Especially interested in methods that focus on the whole person | Interested in cutting-edge methods |
| **STAGE 4** | **Joy of Closure (J-Judging)** | **Joy of Processing (P-Perceiving)** |
| | Goal "what" oriented | Process "how" oriented |
| **Pacing to Closure or Next Steps** | Moves the conversation toward closure or next step | Adopts a spontaneous approach |
| | Irritated by waiting | Mentions issues along the way, thus may appear to go off track |
| | | Takes action at the "last minute"–which may be immediately or after some time |

Adapted from FLEX Care® 1999, from "FLEX Selling®/FLEX Talk® (Four Part Framework, WHAT DO YOU SEE AND HEAR?), 1990 Brock Associates. Revised 1995. Reprinted by permission.

## *The Functional Pairs and How to Use Them*

We have found that how patients prefer others to communicate with them depends most on the combination of functional pairs—Sensing/Intuition and Thinking/Feeling—under stages 2 and 3.

| Functional Pairs | When communicating, use |
|---|---|
| Sensing/Thinking (ST) | ⇒ Logical facts |
| Sensing/Feeling (SF) | ⇒ Personalized facts |
| Intuition/Feeling (NF) | ⇒ Personalized options |
| Intuition/Thinking (NT) | ⇒ Logical options |

The functional pairs ST, SF, NF, and NT seem to determine the focus of the information and how we interact, while the Extraversion/Introversion and the Judging/Perceiving dimensions affect the pace of the interview and the approach to concluding the interaction. These functional pairs make the greatest difference in how patients want information and interaction from their health care provider.

### Sensing/Thinking–Logical Facts Approach

Typically, patients with a preference for Sensing and Thinking (Logical facts approach) desire fact-based interaction:

- Be knowledgeable, efficient, competent, pay attention to detail.

- Do not treat without giving me the full facts.
- Give me information that is honest, truthful, clear, and realistic.
- Do not go around and around. Say it and be done.

### Sensing/Feeling–personalized facts approach

Patients with a preference for Sensing and Feeling (Personalized facts approach) want a warm, personal connection with their health care professional:

- Be friendly, caring, cheerful.
- Listen to me.
- Treat me as a person, remember who I am, my background and needs.
- Do not use trial and error or be unkind.

### Intuition/Feeling–personalized options approach

Those with a preference for Intuition and Feeling (Personalized options approach) want support for their view of their situation, including not only their needs at the time but also the effect of their immediate situation on others, and the future. They want their values respected and supported in any medical treatment that takes place:

- Treat me as an individual.
- Respect my view, involve me.
- Do not treat me as a number.
- Be consistent in words and actions.

### Intuition/Thinking–logical options approach

Patients with a preference for Intuition and Thinking (Big Picture and Logical Implications approach) want their physician to offer logical options and will often "test" the competence of the provider. This is what they want from the provider:

- Be professional, competent, expert.
- Respect my intelligence.
- Involve me in decisions, offer alternatives.
- Do not patronize me or protect me.

## *Summary*

Health care practitioners can learn how to recognize and respond to patient differences. Applying the techniques outlined in this article can improve the kind and depth of information a patient shares, patient satisfaction, patient follow-through, and actual health outcomes. MM

*Judy Allen is a researcher and consultant working with the Myers-Briggs Type Indicator in health care in the UK, with a special interest in oncology and palliative care. Susan A. Brock is an organizational consultant and a licensed psychologist. She has researched, designed, and developed training materials based on the Myers-Briggs Type Indicator; FLEX Selling®, FLEX Talk®, and FLEX Care®.For more information, see the FLEX Care® section of www.BrockAssociates.org and contact Susan Brock.*

*Myers-Briggs Type Indicator® and MBTI® are registered trademarks of Consulting Psychologists Press, Palo Alto, California, USA.*

*FLEX Selling®, FLEX Talk®, and FLEX Care® are registered trademarks of Brock Associates, 5429 West Highwood Drive, Minneapolis, MN 55436; telephone, 612/925-9308.*

*This article was abridged by the editors. More information is available from the authors and Brock Associates at the above address.*

### BIBLIOGRAPHY

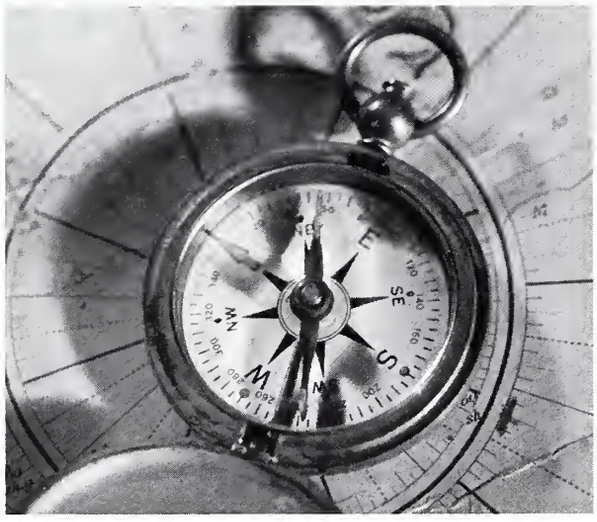
1. Allen J, Brock SA. Making type more available for health care—our story. Bull Psychol Type 1999;22(7).
2. Allen J, Brock SA. Health care communication using personality type—patients are different. Philadelphia: Taylor and Francis Inc., 2000.
3. Brock SA. Using type in selling. Palo Alto, CA: Consulting Psychologists Press Inc., 1994.
4. Jung CG. Psychological types. London: Routledge, 1971.

## *A Model to Assess How People Communicate*

Susan Brock's and Judy Allen's work focuses on the Myers-Briggs Type Indicator, a psychometric instrument measuring preferences, based on Jung's typology of personality. Brock has developed a model for using type preferences to assess and describe how people prefer to communicate. FLEX Talk® and FLEX Selling® use this model to help professionals improve their communication skills.

Brock and Allen extended this research into a new model called FLEX Care® based on how different types want to be dealt with in a health care situation. They summarize this work in their book "Health Care Communication Using Personality Type—Patients Are Different!"[2] A FLEX Care® conference participant summed up his experience this way: "I used to find patients who seemed to want to have an immediate personal relationship with me very intrusive. I always tried to push them away—or draw back myself. Now I understand that I have a Thinking preference, I see it differently. I can appear impersonal and distant, although I don't mean to be. If I recognize a patient in a Feeling mode now, I do my best to concentrate on the personal issues first rather than plunging into business. It definitely works better."

# Confused about purchasing or leasing your next vehicle?



# Let us point you in the right direction with group purchasing.

- Lease or purchase all makes and models of new foreign and domestic cars and trucks.
- Fleet pricing verses retail pricing
- All rebates and special finance programs passed on to the buyer to reduce the overall cost.
- Will provided lease quotes from the best multiple lease sources including the manufacturer's lease program
- One stop vehicle shopping by phone, fax or web page < www.mnmed.org/mmbr >
- Take advantage of over 30 years of experience in the industry and experience working with medical professionals and their employees



## A Vehicle Buying and Leasing Program With Special Benefits

Remember, whether you purchase or lease, MMBR Motor Services and Creative Leasing, Inc. will help you get the most vehicle at the best price. We'll even help you sell your old auto.

Use your money wisely. For personal attention and lease or purchase information on any vehicle, call **612/623-2860**, or toll-free **800/298-MMBR**.

MMBR Motor Services is a service of Minnesota Medical Business Resources, a physician-owned corporation of your medical association.

**MMBR**

Minnesota Medical Business Resources
Owned By
MMA & HMS

# In Search of a Good Death

## *The Spiritual Dimension*

*When a patient faces a life-threatening illness, the physician should be ready to shift the focus of care from body to soul.*

By Gregory A. Plotnikoff, M.D., M.T.S.

Doctor, am I going to die a horrible death?" "Why me?" "Why now?" "I want to die." "I want to die now." "I'm afraid." "I want you to help me die." Such questions and statements from patients touch the soul and challenge us to consider what a good death might be, both spiritually and physically.

The issues these questions raise deserve our consideration. Recent studies of end-of-life care have documented several disturbing facts: Severe pain is unacceptably common, excessive numbers of patients die in intensive care units, and physicians are either unaware of, or unresponsive to, their patients' care preferences. The evidence is overwhelming and true for adults and children.[1-3] Meanwhile, physician-assisted suicide is no longer a hypothetical debate. Twenty-six states have enacted legislation on physician-assisted suicide, in response to a consumer-rights movement. And, following the U.S. Supreme Court's ruling in 1997 authorizing states to permit physician-assisted suicide, Oregon became the first state where physicians may legally assist suicides.

These facts challenge our understanding of medicine as a profession in the service of healing. Perhaps the twin concerns of unacceptably poor end-of-life care and physician-assisted suicide reflect our culture's preference for technical interventions as answers to life's most anguished questions. Observation and scientific data show that we rely too heavily on technology to maintain life when palliative care would be more appropriate[4] and that the fear of losing our autonomy drives the search for technical fixes such as physician-assisted suicide.[5]

From my perspective, such data reflect two profoundly spiritual concerns. First, our profession's focus on science and technology blinds us to issues of the soul. If we do not see spiritual issues in our own lives, we will not see them in the lives of others. When we universalize our own preferences, values, and experience and project them onto our patients, we may not see the diversity of values, beliefs, and spiritual traditions of our patients. Second, if we are personally uncomfortable with death and/or religion and spirituality, then we will do a poor job discussing patient wishes for end-of-life care. Our needs, beliefs, and answers too easily become the patient's needs, beliefs, and answers.

Death and other profound human events are by their very nature spiritual or religious. However, 10 years ago as a resident, I was taught that every life-threatening illness is managed best by yet another technical intervention. Chaplains were not integrated into health care teams. Hospice was never considered until the patient was within days, or even hours, of dying. Thankfully, medical education and practice are improving. However, when the culture of medicine regards death as a biological mistake rather than an inevitable aspect of life, heroic technical interventions become an easy default response, and spiritual matters may be easily mistaken

### Are You Prepared to Hear Your Patients' Spiritual Concerns?

Self-awareness is key to good clinical skills. As the Talmud teaches, "We do not see things as they are, we see things as we are." This ancient wisdom is applicable to clinical practice.

Consider how your values, attitudes, and spirituality might affect your clinical vision. Specifically, when interviewing, are you hearing spiritual needs and concerns? If you are more comfortable with scientific issues, do you see spiritual issues when they arise? If you consider spiritual matters clinically irrelevant, why is that so? Do your patients agree? If you fear personal pain in addressing spiritual concerns, is this an area for personal growth? Who and what are your personal and professional resources?

Intentional reflection will enhance your ability to both hear and respond to the emotional and spiritual needs of patients. May your search for answers lead you to a renewed appreciation of the sacredness of your work.

for technical challenges. In fact, spiritual care for the patient, family, and physician may be completely overlooked or dismissed as trivial.

For patients and families, however, every illness is a spiritual crisis. In 1997, a national survey on spiritual beliefs and dying, conducted by the George H. Gallup International Institute, documented that Americans want to reclaim and reassert the spiritual dimension in dying. Specifically, the study supported the need for physicians to engage their patients more fully in developing a plan of care and to integrate the patients' spiritual beliefs and resources into their care.[6]

The adjacent table reports the top 10 spiritual and emotional concerns of American adults regarding death. Physicians may have heard such concerns from their patients and may have voiced such concerns themselves. Last year, 78 percent of American adults agreed with the statement, "I feel the need for spiritual growth in my own life."[7] Several other recent studies also show that most patients want to discuss spiritual concerns with their physician.[8-11] However, few physicians ever discuss such matters with their patients.[8,10]

Table

*Top 10 spiritual and emotional concerns regarding end-of-life care*

| Concern | Percentage Reporting |
|---|---|
| Not having the chance to say goodbye to someone | 70 |
| Thinking that your death will be the cause of inconvenience and stress for loved ones | 64 |
| Not being forgiven by God | 56 |
| Not reconciling with others | 56 |
| Dying when you are removed or cut off from God or a higher power | 51 |
| The possibility of continued emotional suffering | 51 |
| Not being forgiven by someone for something you did | 49 |
| The possibility of being alone when you are dying | 47 |
| Not having a blessing from a family member or clergy person | 39 |
| Wondering whether anyone will miss you or remember you over time | 35 |

Source: Spiritual Beliefs and the Dying Process. Nathan Cummings Foundation and Fetzer Institute. New York: October 1997.

Before you assess the emotional and spiritual needs of your patients, you should ask yourself these five questions:

- What is a good death for you?
- What is a horrible death?
- Can you imagine scenarios in which life would be worse than death?
- When considering end-of-life care, what is most important to you?
- If your family needed to make decisions on your behalf, what would you most want them to know?

Your answers to these questions may well influence your patient interviewing, care decisions, and referrals to chaplaincy and hospice. Your patients' answers will affect your practice even more. And both will help you guide your patients through a good death—physically and spiritually. MM

*Gregory A. Plotnikoff is the medical director, Center for Spirituality and Healing, and assistant professor, Clinical Medicine and Pediatrics, at the University of Minnesota Academic Health Center.*

REFERENCES

1. The SUPPORT Principal Investigators. A controlled trial to improve care for seriously ill hospitalized patients. The Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatments (SUPPORT). JAMA 1995;274:1541-8.
2. Larson EJ, Eaton TA. The limits of advance directives: a history and assessment of the Patient Self-Determination Act. Wake Forest Law Rev 1997;32:349-93.
3. Wolfe J, Grier HE, Klar N, et al. Symptoms and suffering at the end of life in children with cancer. N Engl J Med 2000;342:326-33.
4. Callahan D. Death and the research imperative. N Engl J Med 2000;342:654-6.
5. Chin AE, Hedberg K, Higginson GK, Fleming DW. Legalized physician-assisted suicide in Oregon—the first year's experience. N Engl J Med 1999;340:577-83.
6. Spiritual beliefs and the dying process. The Nathan Cummings Foundation and Fetzer Institute. New York: October 1997.
7. Conlin M. Religion in the workplace: the growing presence of spirituality in corporate America. Business Week. November 1, 1999, 151-8.
8. King DE, Bushwick B. Beliefs and attitudes of hospital inpatients about faith healing among family physicians. J Fam Pract 1994;39:349-52.
9. Koenig HG, Bearon LB, Dayringer R. Physician perspectives on the role of religion in the physician–older patient relationship. J Fam Pract 1989;28:441-8.
10. McNichol T. The new faith in medicine. USA Weekend. April 5-7, 1996.
11. Wallis C. Faith and healing. Time. June 24, 1996.

# Palliative Care in Minnesota

*Medicine is turning to palliative care to reach more patients at the end of life.*

By Wayne Thalhuber, M.D.

The American public today wants more from mainstream medicine than state-of-the-art machinery or medicines. High technology is necessary but no longer sufficient, especially for patients who are chronically ill or dying. Such patients need more than a hospitalization followed by an office visit for a medication tune-up. They also require—and are requesting—the human touch in health care.

Although hospice programs are designed to provide care for patients with various types of progressive, incurable diseases, hospice has limitations that keep it from reaching enough people—and from reaching them early enough in their illness. The need for an expanded care model was made clear by a study published in the November 1995 *Journal of the American Medical Association*[1] exposing serious deficiencies in the care of the chronically ill and the end-stage patient. Moreover, despite surveys indicating that 80 percent of Americans wish to die at home, only 20 percent of the eligible patients in the United States receive the Medicare hospice benefit, which is mainly a home-based program. For a patient to qualify for the Medicare hospice benefit, a physician must certify a prognosis of less than six months, if the disease runs its usual course. But prognostication of death at six months has been shown to be a guess at best. Hence, late referrals to hospices are the rule, with the length of stay only 30 to 50 days. In addition, among both physicians and the lay public, hospice has often been seen as a home-based program that uses large quantities of morphine and offers no hope, let alone aggressive treatment.

## *Palliative Care*

Palliative care programs, which integrate the traditional concepts of hospice, are not bound by the prognostic restrictions of the Medicare hospice benefit. Palliative care incorporates familiar hospice philosophy and dicta, including the affirmation of life and the recognition of dying as a normal process, pain relief, psychological and spiritual care, the fostering of opportunities to grow despite advanced illness, the use of an interdisciplinary team to improve total person care, and most important, the support of family during the patient's illness and through the bereavement process.

Typically, the admission criteria for a palliative care program include advanced chronic illnesses such as cancer or heart, lung, liver, kidney, or neurologic disease. Despite having a limited life expectancy (but usually greater than six months), the patient may continue to pursue active, aggressive medical treatment in the palliative care model. The palliative care patient usually requires complex symptom management and is often at risk for repeated emergency room visits or ICU hospital admissions. These patients benefit from spiritual, emotional, and physical support during the transition from curative medicine to supportive medicine.

Excellent programs are putting the concepts of palliative care into practice at the Cleveland Clinic, the University of Wisconsin, and Beth Israel Hospital in New York. In Minnesota, HealthEast has linked hospice to home care to form an outpatient palliative care program. Allina has begun to offer palliative care consultative teams serving their inpatient population. North Memorial has created an innovative 15-bed palliative care unit, and HealthPartners has a program that bridges its standard managed care and hospice care. Palliative care discussions have been initiated at the Duluth Clinic, and the Fairview-University system has incorporated palliative care education into its medical school curriculum. Although these programs are not identical, they all address the broad needs of the chronically ill using the interdisciplinary approach that was born in hospice.

## *The Cost*

The funding challenges facing emerging palliative care programs are enormous. Medicare hospice benefits will not fund care that is projected to last longer than six months. The ICD-9 code for palliative care does not include outpatient care delivered by an interdisciplinary team. Although insurance may pay for nursing home care, it will not cover the essential components of the palliative care team. In Minnesota, the state Legislature

is leery of increasing Medical Assistance funding to cover new programs.

For now, the majority of palliative care programs are funded by the private sector and foundation grants. The program at HealthEast, for example, depends on yearly foundation financial support as well as the daily allowable home care charges. What we need is unified funding and a commitment to grant palliative care the status of any other essential medical specialty. With good palliative care, there should be fewer ER and ICU visits and a subsequent savings of health care dollars.

The need for palliative care is clear. Ideally, the collaboration of the various Minnesota programs will determine which model works best. Such information will help hasten the acceptance of palliative care in the mainstream of medicine. **MM**

*Wayne Thalhuber is medical director of HealthEast Hospice and is board-certified in internal medicine and in hospice and palliative medicine.*

REFERENCE

1. The SUPPORT Principal Investigators. A controlled trial to improve care for seriously ill hospitalized patients: The Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatments (SUPPORT). JAMA 1995;274:1541-8.

**Brainerd Medical Center, P.A.**
**2024 South Sixth Street, Brainerd, MN 56401**
**218-828-7105 • www.brainerdclinic.com**

**PEDIATRIC OPPORTUNITY**

A Pediatric opportunity exists at Brainerd Medical Center. Would you like to live in a premiere vacation area in a community that will meet any family need?

If so, the Brainerd area is just for you! Look at the possibilities our multi-specialty clinic has to offer:

- No primary call
- Four day work week
- General Pediatric practice plus
- Enlarging consultative practice
- Active teaching program for med students and residents
- Excellent Family Practitioners
- Great Nurse Practitioners
- Superior Urgent Care and ER coverage
- Private Catholic hospital will exceed your expectations
- Above average income opportunity

To obtain more infromation about this Pediatric opportunity, please feel free to contact Pediatrician, Dr. Michael V. Severson, or Curt Nielsen, Clinic Administrator at the above address or phone number.

**Continuing Medical Education**

**sponsored by Allina Health System**

**April 2000**

**10** **Power Breathing: Improving Teens' Self-Management of Asthma**
PRESENTED BY: Medica Health Plans
LOCATION: United Hospital Conference Center, St. Paul

**10 & 11** **Advanced Trauma Life Support (ATLS)**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: United Hospital Conference Center, St. Paul

**12** **Advanced Diabetes Management: Complications & Trends**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: United Hospital, St. Paul

**May 2000**

**6** **1st Annual Vascular and Echocardiography Conference**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Airport Hilton, Bloomington

**16** **Planning for Success II: Integrating Asthma Care into Practice**
PRESENTED BY: Allina Hospitals & Clinics, Medica Health Plans
LOCATION: Phillips Eye Institute, Minneapolis, MN

**September 2000**

**15** **Obsessive-Compulsive Disorders (OCD) in Adolescents**
PRESENTED BY: Allina Behavioral Health
LOCATION: United Hospital, St. Paul

**16** **Retina Update 2000**
*(watch for additional informatian in future editians)*
LOCATION: Phillips Eye Institute, Heilicher Auditorium

**18 & 19** **Advanced Trauma Life Support (ATLS)**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: United Hospital Conference Center, St. Paul

**October 2000**

**13** **Minnesota and the Aging Driver: Your Options as a Professional**
PRESENTED BY: GRECC/VA Hosp, AAA, State of Minnesota
LOCATION: Earle Brown Heritage Center, Brooklyn Center

**26 & 27** **2000 Front Line Neurology Symposium**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: DoubleTree Hotel, by Mall of America, Bloomington

**For more information contact:**
**Allina Education and Research Administration at (612) 992-2424**

ALLINA HEALTH SYSTEM

®Allina Health System

**Visit the Allina CME Calendar at http://www.allina.com**




MMIC CONSULTING...FOR THE INFORMATION SIDE OF YOUR BUSINESS

### Information systems designed with your unique needs in mind

Our experts understand the nuances of your healthcare business; in fact, it's our specialty. We'll work with you, assessing your current systems, and recommending cost-effective solutions. From software selection to its tactical implementation, we'll partner with you every step of the way including re-engineering your workflow to assure the complete success of your new system.

### Solutions that support your data infrastructure

Creating an efficient and private data infrastructure which allows your computers, users and application software to communicate with each other is essential. Our trained and certified technicians will install, configure and fine-tune your network to meet your communication needs.

***To learn more about MMIC Consulting, call 1-800-328-5532 or visit us at www.mmicconsulting.com***

### A full spectrum of Internet services

MMIC Consulting can expertly develop and host your Web site. We can also set up your Intranet or Extranet. Our secure servers meet all HIPAA security standards, so you can rest assured your environment is safe. We'll also monitor each aspect of system performance and support your user community with training and help desk services.

MMIC Consulting is the IT consulting operation of Midwest Medical Insurance Company

# Grief and the Family

*Interdisciplinary health care teams combine the sciences and the arts to help families find balance as they cope with loss.*

By Ben Wolfe, M.Ed., L.I.C.S.W.

If we imagine a family as a mobile, we can see its members as unique parts of a whole. Parents, children, grandparents, aunts, uncles, significant others, friends, and even individuals who have died are set in a delicate balance. The diagnosis of a life-threatening or terminal illness in one of the members can throw the entire family off balance. "I just want our family to be like it was before," loved ones often say when confronted with a new or impending loss. But families who experience loss will not be the same again. The significant events that change individuals also change families. As health care providers, we need to assist whole families as they seek to cope with a life-threatening or terminal illness, or with death.

How change affects the family balance is the result of many factors, especially the quality of the relationships between members, aa well as family rules and expectations. A family's cultural and ethnic origin, ability to communicate, spiritual or religious beliefs, financial resources, support systems, proximity of members to one another, age of family members, and previous experiences with death and loss also affect the outcome.

For physicians, the moment of "breaking bad news" is a critical time to assess the needs and strengths of a family. It is a time to observe. Who are the players? The leaders? The followers? The ones left out? How does this family communicate? What does the family need?

Certainly, the patient will need medical care. But the family will need care as well. In the article "The Nature of Suffering and Goals of Medicine," published in the *New England Journal of Medicine* in 1982, Eric Cassell writes: "I believe suffering to be the distress brought about by the action or perceived impending threat to the integrity of continued existence of the whole person (bodies do not suffer, persons do)." Each patient and family member will experience some form of suffering, whether physical, psychological, social, or spiritual.

## *A Team Approach*

Dying patients and their families are best served by interdisciplinary teams employing the sciences and arts to meet families' physical, psychological, social, and spiritual needs. All professionals involved with families who are trying to cope with a life-threatening or terminal illness need to recognize themselves as part of a larger whole. No professional can meet everyone's needs all the time.

The core group of an interdisciplinary team typically includes physicians, nurses, social workers, chaplains, counselors, dietitians, and physical therapists. Teams may also include psychiatrists, psychologists, and hospice staff and volunteers. The most important team members are the patient and family. Team members should feel that they are "all in this together" and that each member's role is as important as the next. Additionally, they should consider the team's rules, past losses, and operational style.

Physicians bring to the team the essential skills of assessment and pain and symptom management. They serve as team leaders, teachers, troubleshooters, and consultants to other physicians. They need to be realistic in their expectations and communicate these to the patient and family, while not abandoning the patient or family in the dying process.

Nurses, whether providing hospital or home care, are vital as well. They observe, listen, test, assess, monitor, manage, treat, and care for patients in many other ways. Social workers can be helpful in providing psychosocial support, meeting financial and logistic needs, mediating disputes, reducing conflict, and helping with family conferences. Chaplains or clergy can identify spiritual suffering and help patients and families reframe issues to find meaning in difficult times. Other team members, from nursing assistants to housekeeping staff, all affect the patient's experience.

The team approach works best when the care appears seamless to the patient and family. Effective teams allow for wide circles of participation. Members spend time with the patient and family and, as a result, gain an understanding of both their clinical and personal problems. From day one, team members should be focused on relieving suffering in its broadest context and improving

quality of life. The Institute of Medicine in 1998 stated, "Palliative care seeks to prevent, relieve, reduce or soothe the symptoms of disease or disorder without effecting a cure. ... Palliative care in this broad sense is not restricted to those who are dying or those enrolled in hospice programs. ... It attends closely to the emotional, spiritual, and practical needs and goals of patients and those close to them."

## *Consider Family Values*

Like anyone else, health care providers struggle to make sense of the world within and around them. If they are to be effective with others' families, they need to understand them. To do this, they need to ask several questions: Who is the family? What do they value? What would I want and need under similar circumstances? Would I want for myself or loved ones the kind of care I am now providing to others? Care providers who are compassionate, sympathetic, and understanding of others' family value systems earn the trust of their patients and families.

Care providers who are aware of their own value systems are sensitive to the needs of others. Those who examine their fears, prejudices, and thoughts, and know how their own religious or spiritual beliefs affect their work, are best equipped to help others. In his book "Awareness of Mortality" (Baywood Publishing Co., 1995), Jeffrey Kauffman writes, "We seek to understand and to care for the needs of the dying and bereaved. We are attentive to our own attitudes about death and dying, and recognize that the question of our own mortality is key to our work." Arthur Frank (see related story, page 10) in "The Wounded Storyteller" (University of Chicago Press, 1997) takes the idea of the caregiver's role further: "The different sorts of stories people tell are cued, conditioned, and ultimately made possible by what stories their listeners are comfortable being witness to. The reflective question is: How do the sort of stories people tell me reflect the sort of cues I'm giving them, based on the sort of person I am?"

Families need to know that healthy grieving is a long process, requiring support over time. They need to be reminded that they cannot expect to achieve a perfect balance all the time and that they are reconstructing a personal world of meaning that has been challenged by loss.

You and your health care team may not be able to change a diagnosis, but you can help patients and their families through some of life's hardest moments. While we must remind families that they will never be exactly the same again, we can also help them work toward regaining balance. **MM**

*Ben Wolfe is a licensed independent clinical social worker and program director at St. Mary's Grief Support Center, St. Mary's/Duluth Clinic Health System in Duluth, Minnesota.*

**INTERNAL MEDICINE PHYSICIANS**

United Pain Center in St. Paul is seeking two BE/BC internal medicine physicians interested in working in a multidisciplinary setting managing patients with acute, subacute and chronic pain. This is a challenging opportunity to work with a highly motivated and successful team in an outpatient setting. The team consists of anesthesiologists, internal medicine, nurse practitioners, psychologist and social worker. Our center offers a unique blend of interventional procedures, case management, psychological services and complementary therapies with consultative services provided to the hospital. Contact Allina Hospitals and Clinics, Physician Recruitment, 8450 City Centre Drive, St. Paul, MN 55125.
800-248-4921 or
recruit@allina.com.
Not a J1 site.

ALLINA.
Hospitals & Clinics

www.allina.com

THE PILLARS supports *comfort*, *dignity* and *respect* during end-of-life care.

HealthEast Hospice Care now offers yet another option for end-of-life care. As the first residential hospice home in the East Metro area, The Pillars is built on our tradition of dedicated and compassionate care.




THE PILLARS
Oakdale, MN

For further information contact
HealthEast Hospice Care at 651/232-3312

Initial funding provided by the HealthEast Foundation

HealthEast Care System
www.healtheast.org

# Prescribing Opiates for Pain Relief

*The new medical standard of care requires physicians to ensure good pain control for their patients when possible. Here's how to avoid legal pitfalls while practicing good medicine.*

By Phebe Saunders Haugen, J.D.

*"Among the remedies which it has pleased Almighty God to give man to relieve his suffering, none is so universal and so efficacious as opium."*

*–Thomas Sydenham (1624–1689)*

By now it should come as no surprise to anyone that inadequate pain relief still plagues far too many patients, both those who are dying and those whose conditions afflict them with chronic pain. Surveys and studies revealing this abhorrent situation abound.[1] In one random sample of 454 medical-surgical inpatients, 79 percent reported experiencing pain during hospitalization, and 58 percent considered their pain excruciating.[2] In a study of 2,415 randomly selected hospitalized patients, 67 percent had pain during the 24-hour period before the interview, and 50 percent reported pain at the time of the interview.[3] The widely reported SUPPORT study[4] revealed that two-thirds of patients with advanced cancer complained of pain, and one-sixth reported extremely severe pain at least half the time.

Chronic, nonmalignant pain is a real problem as well. Studies indicate, for instance, that more than two-thirds of nursing home patients experience serious pain.[5] In February 1999, the American Pain Society, the American Academy of Pain Medicine and Janssen Pharmaceutica released results of a survey of 805 persons with moderate to severe chronic pain.[6] More than four out of every 10 of those surveyed described their pain as "out of control." More than half had been suffering for over five years, and among those who reported their severe pain as being "pretty much under control," nearly half had suffered for more than a year before achieving that level of relief. Nearly half of those surveyed had changed doctors at least once since their pain began, and many said they had done so because of their doctors' lack of knowledge about pain and unwillingness to treat it aggressively. Among the patients who had used them, opioid drugs were rated as the most effective treatments they had received, but opiates were seldom given. Only about a quarter of the respondents with very severe pain reported taking such drugs at the time of the survey.

## *The Legal and Regulatory Risks of Inadequate Pain Control*

Physicians have traditionally reported that they fear legal penalties and regulatory sanctions if they prescribe opioid drugs for their patients with severe pain.[1,7] Although pain relief practice does seem to be improving for patients at the end of life,[8] many doctors remain reluctant to prescribe opiates for their patients with chronic pain. Some will avoid using these drugs altogether for these patients, even though long-term opiate therapy has been strongly advocated by many pain specialists, as well as national and international medical organizations.[9] Recent developments in the law and in regulatory pain policy, as well as increased public awareness of the problem, indicate that physicians may have less to fear than they think from aggressive treatment for pain, and more to fear from underprescribing for it.

### Disciplinary Action

For what appears to be the first time in this country, a state medical board has taken action against a physician for undertreating a patient's pain.[10] On September 1, 1999, the Oregon Board of Medical Practice approved a stipulated order signed by a pulmonary specialist acknowledging that he had engaged in unprofessional and dishonorable conduct, with gross or repeated acts of negligence, in his care of six patients with severe pain. Although this physician apparently had a variety of problems in dealing with his patients, the most troubling conduct was his gross undertreatment of their pain. In one case, he prescribed only plain Tylenol for a patient with end-stage cancer, and in another, he refused to prescribe morphine for an 82-year-old woman with congestive heart failure. In a third case, he gave a dying patient only a fraction of the opiate the hospice nurse had suggested.

The Oregon board took a constructive, educational approach in sanctioning this physician. He was required to complete the Physicians Evaluation Education Renewal Pro-

gram (PEER), in which another doctor in the same specialty works with him to make improvements in his practice, and he was ordered to complete a course on physician-patient communication and continue meeting with his psychiatrist, who will give regular reports to the board for at least a year.

### Lawsuits

In a North Carolina court case, a jury was asked to award damages to the family of a nursing home patient to compensate for the intolerable pain he had experienced in his dying days under the care of a nurse there.[11] The patient had metastatic prostate cancer and was expected to die within six months. When he was admitted to the nursing home, his personal physician had prescribed 7.5 ccs of oral morphine elixir every three hours for pain. The nurse at the nursing home decided, without consulting anyone, that the patient was "addicted to morphine" and on her own devised a different "pain management" plan for the patient that involved substituting a mild tranquilizer and delaying the morphine or withholding it altogether.

After the patient's protracted and painful death, the family sued, arguing that the nurse and her employer had failed to meet their essential responsibility to ensure the proper administration of analgesics and had thereby caused the patient to endure greatly increased pain and suffering.[12] At the trial, the family introduced evidence from a number of experts on pain management regarding the proper standard of care for the administration of opiates, and specifically the use of morphine to relieve intractable pain. A nurse specializing in nursing home quality assurance testified that health care institutions have an obligation to ensure proper pain management for patients and nursing home residents. The jury agreed and awarded the family $15 million.

These cases from Oregon and North Carolina illustrate that the physician's ethical responsibility to ensure good pain control whenever possible is becoming the recognized medical standard of care. As doctors know only too well, legal liability for malpractice may well follow when injury to a patient results from a physician's failure to comply with the medical standard of care. Even without evidence of injury, the Minnesota Board of Medical Practice may sanction a physician who "depart[s] from or fail[s] to conform to the minimal standards of acceptable and prevailing medical practice."[13]

### Practice Guidelines

Another major legal development is the increasing use in malpractice litigation of clinical practice guidelines as evidence of the standard of care.[14] Guidelines for anesthesia administration and post-anesthesia care have been admitted to show the standard of care in a few cases, and there are indications that courts may be increasingly willing to admit other practice parameters as evidence of the standard of care. Several sets of excellent pain management guidelines are available for physicians to consult (see "Guidelines for Pain Management," page 60). It is important to remember that the law is highly deferential to good medical practice, as defined by those who engage in it. Documentation revealing that a physician has consulted and carefully followed written practice guidelines can be enormously helpful to the physician whose practices have been challenged in the courts or before the board.

## *Current State and Federal Laws for Prescribing Controlled Substances*

Using opioid drugs for pain control means that the physician's practice will be subject to the state and federal laws relating to controlled substances. In both the federal and state systems, the many drugs that are classified as controlled substances are organized in five schedules, as set out and described in Table 1.

Although there are a number of state and federal requirements that apply when physicians regularly engage in dispensing or administering controlled substances from their offices or clinics, or when they are engaged in research with controlled substances,[15] most physicians do not dispense these drugs themselves. Instead, most doctors write prescriptions in their offices for their patients who need controlled substances, and their concern is with federal and state prescription laws and any rules from the Minnesota Board of Medical Practice.

Prescribing requirements for physicians depend on the schedule to which the drug involved has been assigned, though some rules pertain to all four schedules. Under federal law,[16] a prescription for any controlled substance must be issued for a legitimate medical purpose by an individual physician acting in the usual course of professional practice. It may not be issued to enable the doctor to obtain a supply of the drugs to dispense to patients. If the prescription is for a Schedule II drug, such as morphine, it must be written, and it may not be refilled.[17]

State law similarly requires a written prescription for Schedule II drugs and prohibits refilling.[18] In an emergency, a Schedule II drug may be prescribed orally, so long as the prescription is promptly put in writing and filed by the pharmacist. A written prescription or oral prescription reduced to writing for any drug in Schedules II–V must be written in ink and contain the name of the person for whose use it is intended. It must state the amount of the controlled substance to be compounded or dispensed and directions for its use, as well as the doctor's signature, address, and federal DEA registration number. The prescription must also bear the date when the doctor signed it or, if oral, the date it was accepted at the pharmacy.

Prescriptions for drugs in Schedules III and IV may be written or oral, and may be refilled, with the written or oral consent of the prescriber, no more than five times and no more than six months from the date of issue. The absence of a refill order will be interpreted as a no refill order, and an authorization to refill may not be relayed to the pharmacy through the patient. The physician may delegate the prescribing of controlled substances and legend drugs (non-controlled substances that require a

*Table 1*

## Controlled Substances Classification[1]

Federal law classifies controlled substances in Subchapter I of the Drug Abuse Prevention and Control Act. This Subchapter, popularly called the Controlled Substances Act, is subject to the attorney general's authority to evaluate the schedules, to add or remove drugs, and to move drugs from one schedule to another.[2] Under Minnesota law, the State Board of Pharmacy determines the placement of controlled substances in schedules,[3] using essentially the same criteria as the federal law. The board annually reviews the location of controlled substances in the schedules and may move a drug from one schedule to another. Its classification of a drug may therefore not always be the same as that of the federal law. The physician prescribing a controlled substance should always abide by the more restrictive classification.

Under both federal and state law, there are five schedules of controlled substances. A drug is placed on a particular schedule when certain required findings are made, as described below, for each schedule:

**Schedule I:** Drugs on this schedule have a high potential for abuse and no currently accepted medical use in the United States. Safety for their use under medical supervision is not accepted. Examples of drugs from this schedule are heroin, marijuana, LSD, THC, peyote, mescaline, psilocybin, and mecloqualone.

**Schedule II:** These drugs have a high potential for abuse that may lead to severe psychological or physical dependence, but they have a currently accepted medical use in the United States or a currently accepted medical use with severe restriction. This schedule includes certain narcotics, stimulants, and depressants, among them: opium, morphine, codeine, methadone, oxycodone (Percodan), fentanyl, levomethorphan, and pethidine (Demerol); cocaine, methamphetamine (Desoxyn), amphetamine (Benzadrine, Dexedrine), phenmetrazine (Preludin) and methylphenidate (Ritalin); amobarbital, pentobarbital (Nembutal, Tuinal), secobarbital (Seconal), and phencyclidine.

**Schedule III:** Drugs in Schedule III have less potential for abuse and psychological or physical dependence than the substances in Schedules I or II and include compounds containing limited quantities of certain narcotics, such as codeine, opium, and morphine, or certain stimulants or depressants, as well as anabolic steroids. (Note: Under Minnesota law, anabolic steroids are listed in Schedule IV.)

**Schedule IV:** These drugs are considered to have a low potential for abuse and dependence relative to those in Schedule III and include barbitol, phenobarbital, diazepam (Valium), alprazolam (Xanax), triazolam (Halcion), and meprobamate (Equanil, Miltown).

**Schedule V:** This schedule contains compounds or preparations containing limited quantities of certain narcotic drugs such as codeine and opium, together with "one or more nonnarcotic active ingredients in sufficient proportion to confer upon the ... mixture ... valuable medicinal qualities other than those possessed by the narcotic drug alone." [4] These preparations are considered to have a low abuse and dependence potential compared with those on Schedule IV. They primarily include antitussives and antidiarrheal compounds like Lomotil.

REFERENCES

1. 21 USCA §812 and Minn. Stat. §152.02.
2. 21 USC §811 and 21 CFR §1308.
3. Minn. Stat. §152.02 Subd. 7,8.
4. Minn. Stat. §152.02 Subd. 6.

prescription) to an appropriately licensed and certified health care professional—a certified nurse-midwife, for example—when such duties are expressly within the legal scope of that person's practice.

These statutes, while they must be scrupulously followed, do not tell doctors when to prescribe and how much to order of these controlled substances for any given patient. They provide no bright line to guide the physician who fears legal or disciplinary action for prescribing opiates. Minnesota law empowering the Board of Medical Practice to sanction physicians for various kinds of misconduct states only that "prescribing a drug ... for other than medically accepted therapeutic or experimental or investigative purposes" constitutes grounds for disciplinary action.[19] Prescribing, the board has said, must be done within a range of reasonableness, but the board publishes no standards or guidelines for this aspect of medical practice, considering it an area in which physicians must exercise that skill "for which they have spent years in study and training—clinical judgment."[20]

It is important, then, for physicians to look to other sources for guidance in making clinical decisions about when and how best to use these drugs to provide good pain relief for patients within the bounds of the law and of good medical practice. There are a number of these sources, including protective legislation and several sets of guidelines with which physicians should be familiar.

### *Protective Statutes*

Minnesota has joined a growing number of states that have enacted at least one of two types of laws intended to make it easier for physicians to prescribe opiates and other medications to treat their patients' pain, without fear of legal or disciplinary sanctions.[8,21] One is directed at physicians who fear disciplinary sanctions for prescribing opiates over an extended period for intractable pain. The other is intended to protect physicians from criminal liability for assisting suicide when the medications they

prescribe for palliative care at the end of a patient's life run the unavoidable risk of hastening the patient's death. Minnesota has recently adopted laws of both types, an "intractable pain" statute, and an amendment to our assisted-suicide law.

Under our "intractable pain" law,[22] enacted in 1997, patients whose pain meets the criteria of the statute may be treated with controlled substances from Schedules II–V, and the prescribing physician will not be subject to disciplinary action so long as accurate records are kept detailing the purpose, use, prescription, and disposal of the drugs, and the prescribing is done for a medically accepted therapeutic purpose. The statute requires that patients be informed of the risks, and their consent to the use of the drugs must be given and recorded. The drugs may not be prescribed to treat chemical dependency resulting from their use or to cause the death of the patient, or to a patient the doctor knows is using these drugs for a nontherapeutic purpose. Our statute defines "intractable pain" as a state in which the cause of the pain cannot be cured or relieved, either because cure is not possible or because reasonable efforts have failed. If the patient is not terminally ill, "reasonable efforts" require evaluation by a physician specializing either in pain management or in the treatment of the organ or condition that is the source of the pain.[23]

A 1992 amendment to the Minnesota criminal statute that prohibits assisting a suicide is particularly relevant to physicians treating dying patients. It states that a health care provider who "administers, prescribes or dispenses medications... to relieve another['s] pain or discomfort" is not guilty of assisting a suicide, even when the medications hasten or increase the risk of death, so long as the provider's intent was to relieve pain and not to cause death. This amendment reflects the nearly universal view that providing effective palliative care is a treating physician's most important ethical and professional obligation to dying patients, and the aggressive use of morphine and other potentially dangerous opiates at the end of life should nearly always be protected from the scrutiny of the criminal law.[24]

## *Guidelines for Pain Management*

Physicians now have available several sets of guidelines that can be very useful for improving pain management without violating the law or the policies of the Board of Medical Practice. Some of the most important are these:

### AHCPR Acute Pain Management and Cancer Pain Management Guidelines

In 1992, the U.S. Department of Health and Human Services Agency for Health Care Policy and Research (AHCPR) released its Acute Pain Management Guidelines, and in 1994, its Cancer Pain Management Guidelines.[25,26] These guidelines recommend an interdisciplinary approach to the care of patients with pain, an individualized pain-control plan for each patient, ongoing reassessment of the patient's pain, and the use of both drug and nondrug therapies.

### AAPM and APS Consensus Statement

In 1996, the American Academy of Pain Medicine (AAPM) and the American Pain Society (APS) issued a Consensus Statement on the Use of Opioids for the Treatment of Chronic Pain. The statement recognizes the need for the judicious use of opiate drugs in the management of chronic pain, and it seeks to clarify common misunderstandings and assumptions that have made practitioners and regulators alike wary of cases in which these drugs are prescribed over a long time for patients with chronic pain. The document refers to the findings of numerous studies indicating that true addiction, manifested by compulsive preoccupation and use of the drug even when it causes harm, is rare when such drugs are used for pain, and that even known addicts, when carefully supervised, can successfully be treated with opiates for their chronic pain. It points out that certain other problems traditionally believed to be inevitable risks of long-term opiate use, such as respiratory depression and tolerance (decreasing pain relief with the same dose over time), have been greatly exaggerated.

Like other guidelines, this statement sets out principles of good medical practice that should be followed: a thorough evaluation of the patient; a clear treatment plan to which the patient gives informed consent, and perhaps a written agreement; consultation with a pain specialist or a psychologist in many cases; and ongoing review of the efficacy of the treatment and of any indications of medication abuse. Other important practices include thorough, ongoing documentation to support the evaluation, the reason for the use of the opiate, the overall pain management plan, any consultations received, and regular, periodic review of the patient's need for the drugs.

### JCAHO Pain Management Standards

In August 1999, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) released pain management standards[27] that will integrate pain assessment and management into the JCAHO accreditation standards for hospitals and other health care settings. These new standards, accompanied by examples of implementation for their provisions, have been endorsed by the American Pain Society and will now appear in all of the 2000–2001 accreditation manuals. The standards stress each institution's commitment to pain management, and patients' rights to state-of-the-art pain management, access to pain relief specialists, and appropriate assessment and regular reassessment of the management of their pain.

### FSMB Model Guideline

In May 1998, the Federation of State Medical Boards of the United States Inc. (FSMB) released Model Guidelines for the Use of Controlled Substances for the Treatment of Pain,[28] a particularly helpful document, given the concern of most physicians about medical board review of their pain practices. Although Minnesota's Board of Medical Practice has not

*Table 2*

## A Few Definitions[1]

**Acute pain:** A normal, predicted physiological response to an adverse chemical, thermal, or mechanical stimulus associated with surgery, trauma, and acute illness. It is generally time-limited and is responsive to opioid therapy, among other therapies.

**Addiction:** A neurobehavioral syndrome with genetic and environmental influences that results in psychological dependence on the use of substances for their psychic effects; it is characterized by compulsive use despite harm. Addiction may also be referred to by terms such as "drug dependence" and "psychological dependence." Physical dependence and tolerance are normal physiological consequences of extended opioid therapy for pain and should not be considered addiction.

**Analgesic tolerance:** The need to increase the dose of opioid to achieve the same level of analgesia. Analgesic tolerance may or may not be evident during opioid treatment and is not the same as addiction.

**Chronic pain:** A pain state that is persistent and in which the cause of the pain cannot be removed or otherwise treated. Chronic pain may be associated with a long-term incurable or intractable medical condition or disease.

**Pain:** An unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage.

**Physical Dependence:** Physical dependence on a controlled substance is a physiologic state of neuro-adaptation characterized by the emergence of a withdrawal syndrome if drug use is stopped or decreased abruptly, or if an antagonist is administered. Physical dependence is an expected result of opioid use. Physical dependence, by itself, does not constitute addiction.

**Pseudoaddiction:** A pattern of drug-seeking behavior of pain patients who are receiving inadequate pain management. Pseudoaddiction can be mistaken for addiction.

**Substance abuse:** The use of any substance(s) for nontherapeutic purposes or use of medication for purposes other than those for which it is prescribed.

**Tolerance:** A physiologic state resulting from regular use of a drug in which an increased dosage is needed to produce the same effect, or a reduced effect is observed with a constant dose.

REFERENCES

1. Federation of State Medical Boards of the United States Inc. Model guidelines for the use of controlled substances for the treatment of pain, Section III. (May, 1998).

thus far adopted these model guidelines, the DEA has endorsed them, and the medical board of at least one state, Kansas, has adopted them.

This document encourages physicians to view effective pain control as part of good medical practice for all patients with pain. It recognizes the obligation of all doctors to become knowledgeable about effective pain treatment and about statutory requirements for prescribing controlled substances. It states clearly that controlled substances, including opioid analgesics, may be essential in the treatment of acute pain that is due to trauma or surgery and chronic pain, whether or not caused by malignancy. As the preamble states, "Pain should be assessed and treated promptly, and the quantity and frequency of doses should be adjusted according to the intensity and duration of the pain. Physicians should recognize that tolerance and physical dependence are normal consequences of sustained use of opioid analgesics and are not synonymous with addiction."[29]

The physician who prescribes, orders, administers, or dispenses controlled substances, including opiates, for pain, based on clear documentation of unrelieved pain and in compliance with applicable state and federal law will not be subject to disciplinary action by a board that adopts these model guidelines. The validity of the physician's prescribing will be judged by the treatment of the particular patient and the available documentation, rather than by "the quantity and chronicity of prescribing."

The FSMB Guidelines themselves communicate what an adopting board would consider to be within the boundaries of professional practice. They call for a complete evaluation of the patient, a written treatment plan, and the informed consent and agreement of the patient, including agreement to receive controlled substances from one physician and one pharmacy where possible. For patients thought to be at high risk for substance abuse, a written contract with the physician is recommended. The guidelines stress the importance of the physician's consultation with experts and of accurate and complete documentation. Finally, they clearly define important terms, elucidating the critical distinctions among tolerance, physical dependence, pseudoaddiction, and addiction, distinctions that have often been inadequately understood by practitioners without expertise in pain management (see Table 2).

### *Learning from the Experienced*

Many physicians have spent considerable time and effort devising ways to safely and effectively treat their patients' pain without violating the law or good medical practice. Many of them find that even chronic, nonmalignant pain can best be treated with opiates in some patients. While these clinicians recognize that problems of drug addiction and abuse, diversion of narcotics, and the development of aberrant drug-related behaviors are significant concerns, they

have also learned through experience that with proper management and careful monitoring, many patients can attain good pain relief with relatively stable doses of opioids, without intolerable side effects, for prolonged periods. There is now a considerable literature detailing the strategies, protocol treatment contracts, and documentation advice of these experienced clinicians.[9,30,32]

All physicians have an ethical obligation to use their best efforts to treat their patients' pain. Their best efforts should involve learning as much as they can and liberally consulting with pain specialists. While each experienced physician and pain clinic has its own way of managing patients using opiates for sustained periods, there are a few things about which they all seem to agree:

1. Patients have a right to pain treatment. They are entitled to the best that medicine has to offer to that end, which may involve both pharmacological and nonpharmacological treatment methods.

2. If opioid drugs are contemplated, physicians without substantial experience should consult pain specialists, read the literature, and carefully review the many excellent guidelines now available.

3. When opiates are prescribed, it is especially critical that the physician chart every aspect of the patient's care thoroughly and continually as treatment progresses.

4. Patients should know and understand the risks of opiates and their own obligations under the treatment plan. For instance, they should understand and agree to get all their drugs from one physician and one pharmacy, if possible, without resorting to the emergency department. They should understand and agree that the physician may order urine screens from time to time, and that he or she will maintain contact with the pharmacy concerning the prescription.

5. The physician should see the patient regularly and continually reassess and document the need for the drug, the efficacy of the therapy, its side effects, and any concerns about problems it may create, particularly drug hoarding and uncontrolled drug escalation.

Despite the potential problems and risks associated with the use of opiates for pain, these medicines have been used effectively for 3,500 years and remain the gold standard for pain relief. Good medical practice in this area requires education, consultation with experts, compliance with statutes and prescribing guidelines, continuing reassessment of the patient's care, and thorough, ongoing documentation. With these practices and a measure of common sense, physicians need not fear legal or disciplinary action. **MM**

*Acknowledgments*

*Many thanks to Nancy Ball for invaluable assistance above and beyond the call of duty.*

*Phebe Saunders Haugen is a professor of law at William Mitchell College of Law in St. Paul, Minnesota.*

REFERENCES AND NOTES

1. Shapiro RS. Health care providers' liability exposure for inappropriate pain management. J Law Med Ethics 1996; 24:360-4.
2. Donovan M, Dillon P, McGuire L. Incidence and characteristics of pain in a sample of medical-surgical inpatients. Pain 1987;30:69-78.
3. Abbott FV, Gray-Donald K, Sewitch MJ, et al. The prevalence of pain in hospitalized patients and resolution over six months. Pain 1992;50:15-28.
4. The SUPPORT Principal Investigators. A controlled trial to improve care for seriously ill hospitalized patients: The Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatments (SUPPORT). JAMA 1995;274:1591-8.
5. Ferrell BA, Osterwall D. Pain in the nursing home. J Am Ger Soc 1990;38:409.
6. A copy of the complete survey report is available from Julie Robinson-Tingue at 212/445-8173. A summary of the results may be found at the American Pain Society's Web site: www.ampainsoc.org.
7. See Shapiro, supra at note 1. Cites California survey revealing that 69 percent of physicians stated that the potential for disciplinary action made them more conservative in their use of opioids in pain management.
8. Meisel A. Pharmacists, physician-assisted suicide, and pain control. J Health Care Law & Policy 1999;2:211.
9. Portenoy RK. Opioid therapy for chronic nonmalignant pain: clinician's perspective. J Law Med Ethics 1996;24(4):296-309.
10. Barnett EH. Case marks big shift in pain policy. The Oregonian 1999, Sept 2.
11. Estate of Henry James v. Hillhaven Corp., Super. Ct. Div. 89CVS64, Hertford County, NC (Nov. 20, 1990).
12. Angola R. Inappropriate pain management results in high jury award [letter]. J Pain Symptom Manage 1991;6:407.
13. Minn Stat §147.091 Subd 1(k).
14. See Shapiro, supra at note 1.
15. 21 USCA §823 and Minn Stat §152.101.
16. 21 CFR §1306.04.
17. 21 USCA §829.
18. See Minn Stat §152.11.
19. Minn Stat §147.091 subd. 1 (s).
20. See Minnesota Board of Medical Examiners Update Fall, 1988.
21. See Minn Stat §152.125 and Minn Stat §609.215(3)(a). See also Meisel A, supra note 8.
22. Minn. Stat. §152.125.
23. Minn. Stat. §152.125 Subd. 1.
24. Haugen PS. Pain relief: legal aspects of pain relief for the dying. Minn Med 1997;80(11):15-18.
25. Jacox A, Carr DB, Payne R, et al. Acute pain management: operative or medical procedures and trauma. Clinical Practice Guideline No. 1. AHCPR Publication No. 92-0032. Rockville, MD. Agency for Health Care Policy and Research, U.S. Department of Health and Human Services, Public Health Service, February 1992.
26. Jacox A, Carr DB, Payne R, et al. Management of cancer pain. Clinical Practice Guideline No. 9. AHCPR Publication No. 94-0592. Rockville MD. Agency for Health Care Policy and Research, U.S. Department of Health and Human Services, Public Health Service, March 1994.
27. The complete JCAHO standards for pain assessment and treatment can be found at www.jcaho.org/.
28. These model guidelines are available at the FSMB Web site: www.fsmb.org/pain.htm.
29. Federation of State Medical Boards of the United States Inc. Model guidelines for the use of controlled substances for the treatment of pain. Section 1: preamble (May 1998).
30. Kirkpatrick AF, Derasari M, Kovacs PL et al. A protocol-contract for opioid use in patients with chronic pain not due to malignancy. J Clin Anesth 1998;10:435-43.
31. Belgrade MJ, et al. Assessment and management of chronic pain. Minnesota Board of Medical Practice Update, 1997, Spring 1–5.
32. Cole BE. Clinical practice: ten tips to survive opioid prescribing. The Pain Practitioner 1998; Fall-Winter 8:4.

# Dying in America

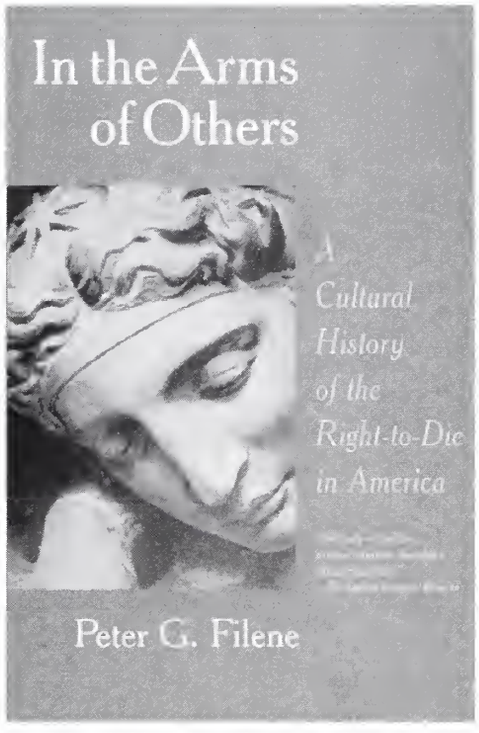
*Peter Filene's* "In the Arms of Others" *traces the last two centuries of medical advances, court decisions, and technologies that have shaped how Americans think about and care for dying patients.*

Reviewed by Charles R. Meyer, M.D.

Has Jack Kevorkian reached the bottom of a cultural slippery slope? University of North Carolina historian Peter G. Filene thinks so. In his book "In the Arms of Others: A Cultural History of the Right-to-Die in America" (Ivan R. Dee, 1998), Filene starts at the top of the historical slope in 19th-century America, when death was a natural part of life observed by an impotent medical profession, then slides through this century and the advent of technologies that snatch the ill from the grave. "In the Arms of Others" tells how medicine has come to balance giving care and giving up.

Death-defying medical care in the 20th century has created ethical dilemmas not contemplated by the 1847 AMA charter that called on doctors to "revive expiring life" whenever possible. As physicians have gotten better at reviving patients at both ends of life, more questions have been asked about who should be revived and when. These questions rumbled subsurface in the 1960s with the birth of the hospice movement in England under Cicely Saunders and the publication of "On Death and Dying" by Elisabeth Kübler-Ross. They exploded into national consciousness with the Karen Ann Quinlan and Nancy Cruzan court cases.

Filene's approach is to humanize the stark court decisions by painting portraits of the people involved in the sentinel right-to-die court cases. His story opens with a trip to the Quinlan's New Jersey home and moves




on to the families of Cruzan and Sakiewicz. He includes in his discussion of these cases comments from ethicists and legal experts, and sometimes tedious descriptions of trials and judicial findings. But by the book's end, he has charted a clear seismic shift in cultural attitudes toward dying in America.

The Karen Ann Quinlan case in 1975 established the right to remove a patient from a respirator. Twenty-three years later that right is rarely debated. Rather, Kevorkian- and Netherlands-style euthanasia dominates the current discussion. Filene writes: "In the 1970s and 1980s came permission to let die: first withdrawal of a respirator, then removal of a feeding tube; first from vegetative patients, then from incompetent but conscious ones. In the 1990s court decisions, unofficial medical practices and public opinion all point toward acceptance of physician-assisted suicide and perhaps even voluntary euthanasia. The meaning of 'the right to die' continues to expand."

The history documented by Filene confronts practicing physicians every day. Patients bring in living wills, and family members initiate limited treatment discussions about terminally ill loved ones. In general, the path from Karen Ann Quinlan to 1998, described by Filene, has led to more *caring* care for dying patients.

But Filene offers a perceptive warning at the end of his book. The search for a "good death" may represent an attempt to manipulate the terminal details of our life: "[Americans] believe every problem can be brought under control if only we try hard enough," he writes. "But dying has always been the ultimate, uncontrollable uncertainty, and modern dying is no less so. Although (or because) 'the right to die' seems to provide a remedy, it gives rise to agonizing uncertainties."

Good death is a tricky balance of medical judgment, patient needs, and humane caring. Losing that balance can land us on an icy slope sliding toward Dr. Kevorkian's death machine. MM

*Charles Meyer is editor-in-chief of* Minnesota Medicine.

# The Minnesota Medical Association Announces a Special Life Insurance Enrollment

*Simplified Issue Group Term Life Offering Makes Qualifying Easy*

You now have an opportunity to take advantage of a special life insurance offer made available through your association and ReliaStar Life Insurance Company. During the Simplified Issue Offering, you can apply for quality protection with the Association Group Term Life Insurance Plan.



Coverage includes a special benefit th waives premiums if you become disabled, a there is an optional benefit that doubles t amount payable for accidental death.

In addition to the Simplified Issue Offer, y and your spouse can take advantage coverage up to $1,000,000 by providi proof of your good health. Spouses can app for up to the same level as the member's li insurance amount.

## Offer Deadline: May 31, 200

## $100,000 on a Simplified Issue Basis With No Medical Exams Required!

**All you need to do to qualify is:**

- be a member under age 50
- be actively at work
- not be currently enrolled in this plan
- be able to answer NO to three health questions on the application

Underwritten by:

RELIASTAR®

ReliaStar Life Insurance Company
Minneapolis, MN
All states except New York

Policy Form LPOOGP

PHYSICIAN APPROVED MMBR ASSOCIATION ENDORSED

MMA
Minnesota Medical Association

**For more information contact:**

MMBR Insurance Agency, Inc.
3433 Broadway Street N.E., Suite 395
Minneapolis, MN 55413
Phone: (612) 623-2860
Fax: (612) 378-3875
1-800-298-6627

*This plan is endorsed by the Minnesota Medical Associat*

**Yes, I would like to know more.**

If you prefer, you can request further informati about this offer by filling out and faxing th coupon to MMBR Insurance Agency, Inc. 612-378-3875.

Name

Address

City State Zip

Phone

Fax

# *A Calendar of Continuing Medical Education Courses*

*Provided as a service of the MMA Committee on Accreditation and CME.* For assistance with scheduling meetings or for information on future medical meetings and CME courses, please contact the MMA office: 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; 612/378-1875. For a complete listing of our calendar, visit the MMA Web site at www.mnmed.org. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

## MAY 2000

May 8-12 **Family Practice Review: Update 2000** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

May 12 **16th Annual Heart Conference** St. Mary's/Duluth Clinic Health System; Duluth Entertainment Convention Center, Duluth, MN. CONTACT: Diane Torvick, 400 East Third Street, Maildrop 5AV2ME, Duluth, MN 55805; 218/786-3838.

May 12 **Burn Conference** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Marilyn Horstman, HealthPartners, Continuing Medical Education, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.

May 12 **Minnesota Orthopaedic Society Annual Meeting** Minnesota Medical Association in joint sponsorship with Minnesota Orthopaedic Society; Minneapolis Convention Center, Minneapolis, MN. CONTACT: Colleen Jensen, Minnesota Orthopaedic Society, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/362-3737.

May 19 **Ethics and the Patient Experience in Clinical Research** Institute for Research and Education HealthSystem Minnesota; Park Nicollet Clinic, Naegele Auditorium, St. Louis Park, MN. CONTACT: Amie Reynolds, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN, 55416; 612/993-3538.

May 19 **Biological, Chemical, and Nuclear Terrorism** Hennepin County Medical Center and Minnesota Department of Health, Sheraton Inn Airport, Bloomington, MN. CONTACT: Carl Hornfeldt, Hennepin County Medical Center, Continuing Medical Education, 701 Park Avenue, Mail Code 861B, Minneapolis, MN 55415-1829; 612/347-2108.

May 19-21 **Sixth International Symposium on MPS and Related Diseases** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

May 22-26 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

## JUNE 2000

June 2 **Seventh Annual Spring Sports Medicine Symposium** Red River Valley Sports Medicine; Ramada Plaza Suites, Fargo, ND. CONTACT: Don Bruenjes, 2301 South 25th Street, Fargo, ND 58103; 701/280-2212.

June 2-3 **North Central Neonatology Issues Conference** University of Minnesota; Osthoff Resort, Elkhart Lake, WI. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

June 2-3 **Primary Care Practitioner Update** The Foundation for Better Health Care; Radisson Hotel, St. Paul, MN. CONTACT: Galaxy Registration, c/o PCPU, PO Box 3918, Frederick, MD 21705; Info: 617/585-3717, Registration: 301/694-5243, or e-mail: pcpu@hhcc.com.

June 7-9 **64th Annual Course: Advances in Trauma and Critical Care Surgery** Department of Surgery, University of Minnesota Medical School; Ted Mann Concert Hall, University of Minnesota, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

June 8 **Knowing the Ins & Outs of Billing, Coding, and Documenting Behavioral Health Sciences** Minnesota Medical Association in joint sponsorship with Minnesota Association of Community Mental Health Programs, Inc.; DoubleTree Hotel-Minneapolis Airport at the Mall of America, Bloomington, MN. CONTACT: Angie Finholt, Minnesota Association of Community Mental Health Programs, Inc., 1821 University Avenue West, #350-5, St. Paul, MN 55104; 651/642-1903.

June 8-10 **Practical Diagnostic Hematopathology: Non-neoplastic Hematologic Diseases with Emphasis on Red Blood Cell Disorders Conference, Honoring Virgil F. Fairbanks, M.D.** Mayo Foundation; Mayo Foundation, Rochester, MN. CONTACT: Registrar, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

June 15 **2000 Brain Injury Conference—Maximizing Outcomes: The Spectrum of Prevention** Mayo Continuing Nursing Education; Mayo Clinic, Rochester, MN. CONTACT: Mayo Continuing Nursing Education, Eisenberg S-41, 200 First Street SW, Rochester, MN 55905; 800/545-0357.

June 19-23 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

June 22-24 **Topics and Advances in Pediatrics** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

June 23-25 **Medical Updates 2000** St. Cloud Hospital; Ruttger's Sugar Lake Lodge, Grand Rapids, MN. CONTACT: Sandi Theisen, St. Cloud Hospital, CME Division of Medical Staff Services, 1406 Sixth Avenue North, St. Cloud, MN 56303; 320/251-2700, ext. 54551, or e-mail: theisens@centracare.com.

JULY 2000

July 10-14 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

July 16-22 **Mayo Clinic Internal Medicine Certification and Recertification Board Reviews 2000** Mayo Foundation; Mayo Civic Center, Rochester, MN. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

July 28-29 **Interactive Approach to Setting Up a Lipid Clinic** Minnesota Medical Association in joint sponsorship with St. Paul Heart Clinic; DoubleTree Hotel-Minneapolis Airport at the Mall of America, Bloomington, MN. CONTACT: Patty Bowman, St. Paul Heart Clinic, 1600 St. John's Boulevard, #200, Maplewood, MN 55109; 651/747-8607.

AUGUST 2000

Aug. 6-8 **Fifth Annual Mountain Course–Success with Failure: New Strategies for the Evaluation and Treatment of Congestive Heart Failure** Mayo Foundation; Chateau Whistler, Whistler, B.C., Canada. CONTACT: Registrars, Mayo School of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Aug. 18-19 **Inpatient Medicine: 1st Annual Midwest Regional (NAIP) Meeting** Mayo Foundation; Mayo Foundation, Rochester, MN. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Aug. 20-26 **Medical Ethics in the New Millennium** Health-East Care System with the Minnesota Guild of the Catholic Medical Association; Hotel Giotto, Assisi, Italy. CONTACT: Annette Anderson, 1700 University Avenue West, St. Paul, MN 55104; 651/232-5104.

Aug. 21-25 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

SEPTEMBER 2000

Sept. 5 **Endorectal Ultrasonography** Division of Colon and Rectal Surgery–Univeristy of Minnesota; Midway Health Service, St. Paul, MN. CONTACT: Continuing Medical Education, University of Minnesota, Suite 107, 615 Washington, Avenue SE, Minneapolis, MN 55414; 612/626-7600, 800/776-8636 or fax 612/626-7766.

Sept. 6 **Pelvic Floor Workshop: Testing, Patient Simulation and Evaluation** Division of Colon and Rectal Surgery–Univeristy of Minnesota; Midway Health Service, St. Paul, MN. CONTACT: Continuing Medical Education, University of Minnesota, Suite 107, 615 Washington, Avenue SE, Minneapolis, MN 55414; 612/626-7600, 800/776-8636 or fax 612/626-7766.

Sept. 7-9 **Principles of Colon and Rectal Surgery: Principles and Practice 2000** Division of Colon and Rectal Surgery–University of Minnesota; Hilton, Minneapolis, MN. CONTACT: Continuing Medical Education, University of Minnesota, Suite 107, 615 Washington, Avenue SE, Minneapolis, MN 55414; 612/626-7600, 800/776-8636 or fax 612/626-7766.


PEDIATRICIAN

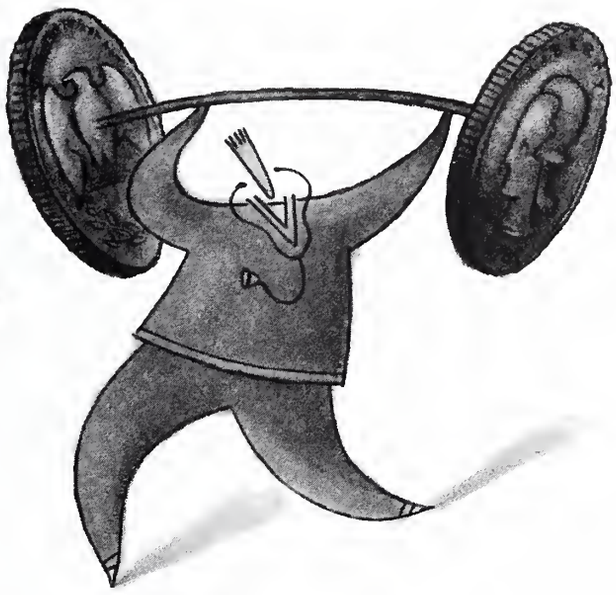
*Opportunity in Minnesota*

We are looking for a BE/BC physician to join two current pediatricians at Albert Lea Medical Center – Mayo Health System. Albert Lea Medical Center houses a 107-bed hospital and a 48-provider multi-specialty clinic with regional clinics in southern Minnesota and northern Iowa. Located 90 miles south of Minneapolis/St. Paul and 70 miles southwest of Rochester, Albert Lea features beautiful lake and park areas and an excellent school system. Ideal candidate should be a team player, willing to share call, enjoy working closely with other multi-specialty group members and communicate well with patients and colleagues.

*Inquiries:*
Jeffrey Lotts, M.D.
Diane Clark, R.N.
404 W. Fountain St., Albert Lea, MN 56007
*web:* www.almedcenter.org *email:* dclark@mayo.edu
*phone:* (888) 999-2386 *fax:* (507) 377-4826

Albert Lea Medical Center
*Mayo Health System*

# We've got the strength in numbers to help you with your office supply needs.



Office Depot and
Minnesota Medical Business Resources
present...

## The Office Supply Program

Minnesota Medical Business Resources and Office Depot are pleased to offer the following special program for members of the Minnesota Medical Association and their clinics.

The Office Supply Program includes:

- Up to 80% off list price on the items most frequently ordered by medical clinics.
- Average of 45% off list price on all other stocked items.
- 750 items of furniture available for next day delivery.
- Easy ordering via Fax or Internet—customized forms developed for your clinics based upon frequently ordered items.
- Retail market pricing on electronics, business machines and software.
- FREE next business day delivery to all of Minnesota.
- Retail store purchasing cards for your emergency needs, copies, specials. *Receive your contract pricing at our retail stores.*
- Quarterly rebate of 3 % on stocked item purchases.

To establish an account or if you have questions, please contact:

**Brad Broman**
**Account Manager**
**Direct line: 612-513-4056 • Outstate: 800-392-4777 x4056**
**email: bbroman@officedepot.com**

Office DEPOT®
Business Services Division

MMBR
Minnesota Medical Business Resources
Owned By MMA & HMS

*First Call Physicians, Inc.*
*A Locum Tenens Service*
*500 Eighth Ave. S.*
*Buffalo, MN 55313*

**Clinics/Hospital** | **Physicians**

*Locums Coverage*
*=*
*Revenue*

- Patients falling through the gaps?
- Physician burn-out or illness?
- Shortage of physicians?

- Earn more with less time.
- No administrative headaches.
- Malpractice premium paid.

***Experience, Service, Honesty***
***Call (metro) 682-3852***
***(toll free) 888-682-3852***

***(You'll be glad you did!)***

**Chief Medical Officer**

PreferredOne, a leading Minneapolis-based managed care organization serving the Upper Midwest and operating HMO, TPA, and PPO products, is seeking a Chief Medical Officer to lead the development of the medical management and quality management functions in a consumer-driven environment. **Requirements:** Board certification with a minimum of five years clinical practice experience, five-plus years progressive management experience in a health insurance/managed care entity, excellent communication, and leadership skills. **Compensation:** Competitive base salary, bonus potential, and full benefit package.

Please send cover letter and resume to:
Nancy Hayes, Human Resources
PreferredOne
6105 Golden Hills Drive,
Minneapolis, MN 55416
or email: nhayes@preferredone.com

**Physician Employment Opportunities Available at WINONA CLINIC, LTD.**

**Internal Medicine**
*with concentrated area of study in Cardiology, Gastroenterology, or Neurology*
(position available in 2001)

**Orthopedic Surgery**
(position currently available)

**Pediatrics**
(position available in 2001)

Our staff of 30+ medical providers is looking forward to welcoming you, as you begin your practice at this thriving, independent, physician-owned, multi-specialty clinic, located in a family-oriented community situated along the Mississippi River in the beautiful bluff country of southeastern MN.

*For additional information, contact:*
**Administrator**
**Winona Clinic, Ltd.**
**420 East Sarnia Street**
**Winona, MN 55887**
**Phone: 507-457-7722**
**Fax: 507-457-7672**

North Memorial Health Care®
*An Organization of Health Care Professionals*

*North Memorial is an independent, full-service facility located in the northwest Twin Cities with more than 700 physicians in more than 40 specialties. We are known as the trauma center in the region with other notable programs including the Hubert H. Humphrey Cancer Center, North Heart Center, North Rehabilitation Center, and the Women's and Children's Center. We also strongly promote physician practice opportunities within our associated clinics, including those that are independently owned, joint ventures and hospital owned. Which means you can choose from large or small and multi or single specialty practice options in metro, suburban or rural locations. North Memorial offers very competitive salaries and excellent fringe benefits. Sounds like the perfect job, doesn't it?*

*Positions now available for BE/BC physicians in:*

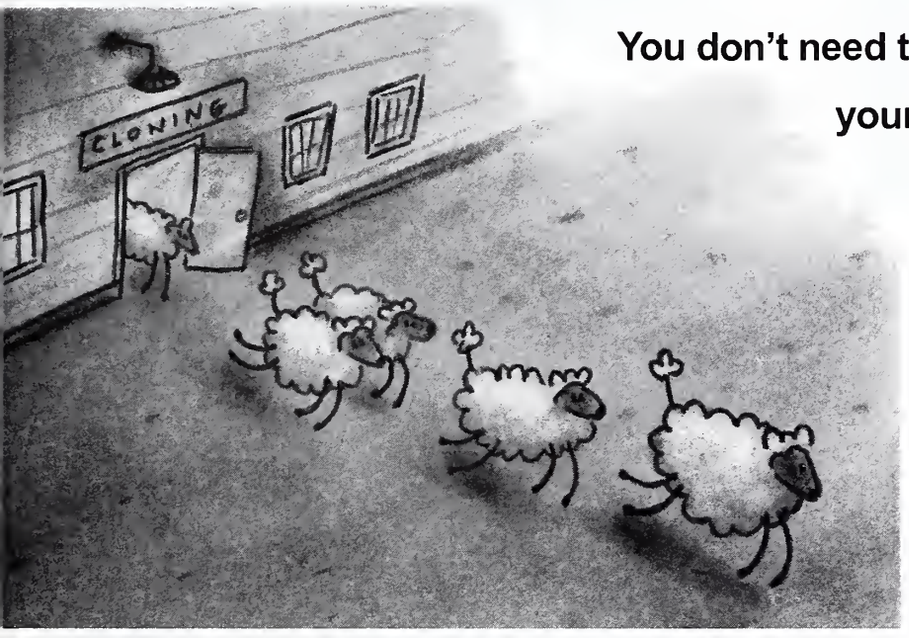
- Family Practice
- OB/GYN
- Internal Medicine
- Gastroenterology
- Hematology/Oncology
- Emergency Medicine
- Pediatrics
- Maternal Fetal Medicine
- Urgent Care

For consideration to be a part of our team please mail, fax, or e-mail cover letter and C.V. to:

Mark A. Peterson, Physician Recruiter
North Memorial Health Care
3300 Oakdale Avenue North
Robbinsdale, MN 55422
Phone: (800) 275-4790 or (612) 520-1336
Fax: (612) 520-5997
E-mail: mark.peterson@northmemorial.com

# Searching for ways to put more time back into your day?

# MSBC can help.




**You don't need to resort to cloning yourself to regain control of your time commitments.**

Your colleagues have honored you by electing you to serve as an officer of your society. They respect your professionalism and leadership skills. You've got the ideas and ambition it takes to make your society an integral part of your profession. However, the thought of you and your office staff taking time away from patients to manage the day-to-day activities of your association somehow takes away the thrill of what should be a very exciting time for you. Management Services By Choice (MSBC), a program of the Minnesota Medical Association, can help. Our professional staff will work directly with you to expand, improve, or develop new programs to best serve your membership. Call 612/378-1875 or 800/342-5662 or visit our Web site for more information–www.mnmed.org/MSBC.

**MSBC offers a wide range of affordable, efficient services designed specifically to meet the administrative needs of medical societies, large and small.**

MSBC
MANAGEMENT SERVICES BY CHOICE
A PROGRAM SPONSORED BY THE MMA

# *Physician Opportunities and Miscellaneous Listings*

***Classified rates are $2.50 a word (300-word maximum). Minimum monthly charge is $50; with box number $5 additional. Ads will not be accepted by phone. (Effective January 2000, the rates will be $2.50 a word for all new ads.)***

- Placement of ads must be made six weeks before the date of publication, e.g., May 15 for July ad. Please send ad requests to *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; or by fax, 612/378-3875; or e-mail, mm@mnmed.org.
- The publisher reserves the right to decline or withdraw advertisements. The publisher is not responsible for clerical or typographical errors and is not permitted to divulge the identity of advertisers who have replies sent to box numbers.
- Cancellation of ads must be made by the first of the month preceding month of issue.

---

**Urgent Care Physicians:** Independent group seeking part/full-time physicians to staff our urgent care facilities in Bloomington, Burnsville, Edina, and Lakeville. Contact the director of support services, 612/985-8931, or send inquiries to Quello Clinic Ltd., 7801 East Bush Lake Road, Suite 300, Bloomington, MN 55439. (*6/98-R)

---

**Family Physicians:** Independent, well-established suburban FP group seeking part/full-time FPs who like doing OB and full FP services. Clinics in Bloomington, Burnsville, Edina, Eden Prairie, Lakeville, and Savage. Excellent call schedule. Contact: Medical Director at 612/985-8922 or write Quello Clinic Ltd., 7801 East Bush Lake Road, Suite 300, Bloomington, MN 55439. (*7/98-R)

---

**Fairview Health Services:** Practice opportunities in urban, suburban, and rural locations. Moonlighting opportunities also available. Please contact Fairview Physician Recruitment and Retention at 612/672-2288, 800/842-6469, fax: 612/672-2986, e-mail: recruit1@fairview.org or visit our Web site at www.fairview.org/recruitment. (1/00-R)

---

**Olmsted Medical Center** is seeking BC/BE physicians in family medicine, emergency medicine, and dermatology to join our 75-physician multispecialty group. Great opportunity for well-trained physicians to join a family-friendly group in a dynamic, progressive practice. In addition to its main office and hospital in Rochester, the Olmsted Medical Center system includes 11 branch office locations in southeastern Minnesota. Excellent salary and benefits, including health benefits, malpractice, spending accounts, educational funds, profit sharing, 401(k)/403(b), and relocation assistance. Send CV to Lois Till-Tarara, Olmsted Medical Center, 1650 Fourth Street SE, Rochester, MN 55904; 507/287-2430. Fax: 507/285-8973. (*3/99-R)

---

**Falls Medical Search Seeks Physicians** for practice opportunities locally and nationally. To explore new practice options confidentially, send your CV or call Pat Falls, Falls Medical Search, 34 Forest Dale Road, Minneapolis, MN 55410; 612/922-0207 or 800/383-8916. (*5/92-R)

---

**Receivables Financing:** Truth is ... physicians face a tremendous financial burden—delayed payments from third-party payors. We have a program that lets you use your receivables—income you've already earned—in the time frame that best suits your needs. Don't let your receivables keep you waiting. Contact us today. Kaufman Medical Funding, 612/470-7900. (4/00-R)

---

**BC/BE Internist:** Outstanding opportunity for well-trained individual interested in balancing personal values and professional endeavors. Seeking a seventh BC/BE general internist to join a 37-physician multispecialty group. Visit www.lrhc.org. Excellent salary/benefits package includes guaranteed salary the first year with full partnership after one year. For confidential information on this opportunity, contact David T. Bjork, M.D., Bruce E. Money, M.D., or Jim Wilkus, administrator, 615 South Mill Street, Fergus Falls, MN 56537, 218/739-2221. EEO/AA. 4-6/00

---

**MDsearch** assists medical groups and hospitals in their recruiting efforts. For confidential information on opportunities in the Upper Midwest, send CV and/or call collect Mary Jo Cordes, MDsearch, PO Box 21507, St. Paul, MN 55121; 651/454-7291. Fax: 651/454-7277. (2/93-R)

---

**Fergus Falls Medical Group, P.A.:** The Fergus Falls Medical Group is expanding its 37-physician multispecialty clinic and is seeking physicians in the following specialties: dermatology, family practice, internal medicine, ophthalmology, optometry, orthopedics, pediatrics, and urology. Excellent salary/benefits package includes guaranteed salary the first year, with full partnership after one year. For confidential information on this opportunity, contact David T. Bjork, M.D., or Jim Wilkus, administrator, 615 South Mill Street, Fergus Falls, MN 56537, 800/247-1066. EEO/AA. 4-6/00

---

**OB/Gyn, General Surgeon, and Ophthalmologist:** BC/BE to join progressive 37-physician multispecialty group practice. Rural setting with metropolitan style, 25 miles from Minneapolis. Group has excellent reputation and large geographical referral area. Recently expanded facility is adjacent to newly remodeled 110-bed hospital. Comprehensive benefit package with excellent remuneration. Interested physicians should contact Joseph E. Van Kirk, M.D., Lakeview Clinic, Ltd. 424 State Highway 5 West, Waconia, MN 55387, 612/442-4461. AA/EOE. 3-5/00

---

# Wouldn't you like a **LOW-COST** employee benefit?




**MMBR** has partnered with **IBM Mid America Employees Federal Credit Union** — one of the largest and most successful credit unions in the state — specifically for the benefit of your medical practice.

- IBM Mid America is driven by a mission of providing **high-quality service** — 98% of its members say the credit union either meets or exceeds their service expectations.*
- Some experts estimate that credit union membership can save the average American family **$400 to $500** a year.
- The credit union emphasizes **high savings rates, low loan rates,** minimal fees and convenient access through a combination of branch offices and state-of-the-art technology.

*To find out how the valuable benefit of credit union membership can be offered to your employees at* ***no cost*** *to you, call MMBR at* ***1-800-298-6627*** *or* ***612/623-2860.***

## Are you interested in an employee benefit that:

- Adds **real value** to your benefits package?
- Can help increase **employee retention?**
- Requires **no investment** of your administrative time?
- Is **easy to implement,** with no hassle?

* 1999 Service Quality Survey

IBM **MID AMERICA** EMPLOYEES FEDERAL CREDIT UNION

**MMBR**

MINNESOTA MEDICAL BUSINESS RESOURCES OWNED BY MMA & HMS

**www.mnmed.org/mmbr • e-mail: mmbr@mnmed.org**

## Picture your future with ACMC... We think you'll fit right in!

ACMC is a 100+ multi-specialty group providing primary and secondary care in over 23 specialties in a network of 10 clinics in Southwestern and West Central Minnesota.

ACMC offers a secure practice among a well-established and respected physician owned group with a very competitive financial and benefits package.

Positions now available for BE/BC physicians in:

Benson: *Family Practice*

Litchfield: *Family Practice*

Marshall: *Family Practice, Internal Medicine*

Redwood Falls: *Family Practice, Internal Medicine*

Willmar: *Family Practice, Internal Medicine, Oncology, Orthopaedic Surgery, Gastroenterology, Anesthesia*

Please contact:
**Kari Bredberg, Physician Recruitment**
**(320) 231-6366 • karib@acmc.com**
Affiliated Community Medical Centers
101 Willmar Avenue SW • Willmar, MN 56201
www.acmc.com

Affiliated COMMUNITY Medical Centers, P.A.

**Family Physicians:** Practice opportunity for family physicians at three sites in NW metro area. Camden Physicians, Ltd. is a growing, independent, physician-owned family practice single-specialty group. A competitive salary with excellent benefits and partnership opportunities are offered. Contact: William Youmans, M.D. (612/522-6601) or Edwin Olson (763/599-0092). Fax: 612/559-9404. 2-6/00

---

**Electronic claims processing, reimbursement specialists, prompt payments** from insurance companies in just 10 to 21 days, unaccepted claims rate down to 3% or less. For information call I.F. Data Services at 218/286-5508; e-mail: richard@northwinds.nedt. 2-5/00

---

**Pediatrician:** Full- or part-time. Private pediatric group in southwest metro area. Send resume to: Dr. Vicki Thomson, 7 Woodland Road, Edina, MN 55424. 3-5/00

---

**For Sale:** Executive home on 10 acres in NW Plymouth. Custom built by Nedegaard Construction in 1995. Has 3,500 square feet. Walkout. Four bedrooms, four-car attached garage with adjoining heated workshop. Wayzata schools. Woods frontage with Elm Creek as back border. A rare piece of acreage. Lower $600s. Call evenings 612/559-3000. 1-5/00

---

## *Senior Vice President for Medical Affairs*

Avera Health is establishing a new senior management position of Senior Vice President for Medical Affairs. This full-time position will be located in Sioux Falls, South Dakota, and include extensive travel within the Avera Health service area in parts of SD, IA, MN, NE, and ND. The position will report directly to the President/CEO of Avera Health and be a member of Avera's Senior Management Team.

The key functions of this position include serving as a steward of relationships between Avera Health and physicians throughout the Avera Health service area, providing physician leadership to quality improvement and managed care initiatives of the system and serving as a physician advocate in Avera Health decision making.

Preferred candidates should have at least three years medical practice experience in the described geographical area, possess strong verbal and analytical skills, be team oriented and have medical staff/association leadership experience.

Salary will be competitive. Avera Health offers an exceptional benefit program.

Working with its partners Avera Health provides a quality, cost-effective health ministry which reflects Gospel values. Our vision is to improve the health care of the people we serve throughout a regionally integrated network of persons and institutions.

Inquiries or requests for more information should be addressed to:

**John T. Porter**
**President/CEO**
**Avera Health**
**P.O. Box 38**
**Yankton, SD 57078**
**Telephone: 605/322-7050**
**Fax: 605/322-7060**

Avera Health

*Avera Health is an Equal Opportunity Employer*

## *Dermatology, General Surgery, Internal Medicine, Neurology and Pediatrics*

There are immediate openings at Brainerd Medical Center for the following specialties: Dermatology, General Surgery, Internal Medicine, Neurology, and Pediatrics.

**Brainerd Medical Center, P.A.**

- 41-Physician independent multi-specialty group
- Located in a primary service area of 50,000 people
- Almost 100% fee-for-service
- Excellent fringe benefits
- Competitive compensation
- Exceptional services available at 162-bed local hospital, St. Joseph's Medical Center

**Brainerd, Minnesota**

- Surrounded by the premier lakes of Minnesota
- Located in central Minnesota less than 2½ hours from the Twin Cities, Duluth and Fargo
- Large, very progressive school district
- Great community for families

**Call collect to Administrator:**
Curt Nielson
(218) 828-7105 or (218) 829-4901
2024 South 6th Street
Brainerd, MN 56401
email: bmc@brainerd.net
internet:www.brainerdmedicalcenter.com

BMC

# MEDSTAT

SPECIALIZED MEDICAL TRANSPORTATION

*"A VITAL LINK BETWEEN PATIENT AND PHYSICIAN."*

**DEDICATED TO ASSISTING**

**THE MEDICAL COMMUNITY**

**IN THE PROVISION OF**

**OPTIMAL PATIENT CARE**

**AND CLIENT SERVICES.**

Much more than a courier service, MEDSTAT can meet the unique needs of the medical community. MEDSTAT's relationship with MMBR allows MMA members and their clinics to receive medical transportation rates that are generally below that of traditional transportation companies.

## MEDSTAT is a unique transportation system that can provide you with the following:

- Medical interoffice transport
  PATIENT RECORDS, FILMS, OFFICE CORRESPONDENCE, ETC.
- Laboratory specimen pick up and delivery
- Blood transport services
- Medical distribution
- Medical supply pick up and delivery
- Medical vendor/medical provider transport
- Pharmacy distribution
  RETAIL, WHOLESALE, COMMERCIAL AND INTRAVENOUS
- Home health care/patient interactive pick up and delivery
- Limited on-demand services

MEDSTAT

SPECIALIZED MEDICAL TRANSPORTATION

***MEDSTAT SYSTEMS, INC.***
5155 East River Road, Suite 407
Fridley, MN 55421
Office: 612/586-8146
Toll free: 888/234-3618
Fax: 612/586-8147
email: vitallink@earthlink.net
www.medstatsystems.com

MMBR
MINNESOTA MEDICAL BUSINESS RESOURCES
OWNED BY MMA & HMS

**Minnesota Medical Business Resources**
3433 Broadway Street NE, Suite 395
Minneapolis, MN 55413
612/623-2860
e-mail: mmbr@mnmed.org
internet: mnmed.org/mmbr

## 80 years and Still Growing.

*We're looking for BC/BE physicians for the following positions:*

**Internal Medicine/Family Practice**—We have multiple opportunities available in our internal medicine department at the main Clinic in Mankato, and for a family practice physician in our nearby Mapleton, MN Clinic. The Mankato Clinic is a multi-specialty group practice with 75+ providers and a service area population of over 250,000. Our scenic riverside community has big city amenities, services, shopping and restaurants all without the traffic hassles.

**Radiology**—Exceptional opportunity to join our Radiology Department. Brand new, state-of-the-art volume acquisition multi-detector, spiral CT scanner coming on line at the Clinic in March necessitates expanding this well established department. This opportunity also includes reading MRI from the region's newest open MRI. Desirable call schedule provides time to enjoy life in this scenic river valley community.

We offer a guaranteed first year salary with incentive pay plan. Our full range of benefits includes a generous retirement plan and liberal time-off policy.

**For more information call Dr. Byron C. McGregor, Medical Director at 507-389-8548 or Dennis Davito, Director Physician Recruitment, 507-389-8654 or send CV.**

**Mankato Clinic**
**1230 East Main Street**
**Mankato, MN 56002-8674**

**Iowa:** Family practice, hematology/oncology, hospitalist, obstetrics/gynecology, and rheumatology. Contact: Jerry Hess, Mercy Medical Center-North Iowa, 1000 4th Street SW, Mason City, IA 50401. Phone 888/877-5551, fax 515/422-6388 or e-mail Hess@mercyhealth.com. 3-5/00

**Emergency Medicine:** Flexible lifestyle offered. Weekends, or work 3–9 days and have 20–27 off. Regional group staffing low-moderate volume ERs in northern Minnesota, Wisconsin, and northern Iowa. Contact: Brad McDonald, M.D., Wapiti Medical Group, 888/292-2036. 3-7/00

**Fairview Health Services:** Practice opportunities in urban, suburban and rural locations. Moonlighting and part-time urgent care opportunities also available. Please contact Fairview Physician Recruitment and Retention at 612/672-2288, 800/842-6469, Fax: 612/672-2986, e-mail: recruit1@fairview.org or visit our Web site at www.fairview.org/recruitment. 1-5/00

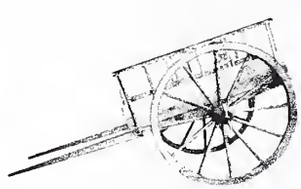
**Clinical Space Available for Subleasing:** New beautifully finished medical space in Phase 2 of the WestHealth Medical Building. Building amenities include free parking, on-site laboratory, and pharmacy. Clinic space includes six examination rooms and on-site x-ray. For more information, please call 612/383-0770. 2-5/00

BC/BE FP's

GO
WEST...

CLAIM YOUR FUTURE...

- Independent Practice
- Physician Owned Clinic
- Great Compensation
- Great Benefits



Montevideo CLINIC, P.A.

EXPLORE THE POSSIBILITIES.
www.MontevideoMedical.com

## Owatonna — A place to practice. A place to live.

Owatonna Clinic — part of Mayo Health System — is expanding its healthcare team in dermatology, family medicine, internal medicine, obstetrics/gynecology and orthopedics.

Learn more about our practice and our community. Owatonna offers:

- Excellent schools
- Growing business community
- Active arts center
- Central location

**Contact David Berg, Owatonna Clinic, at 507-455-4441.**

Owatonna Clinic
*Mayo Health System*

MAY 2000 INDEX TO ADVERTISERS

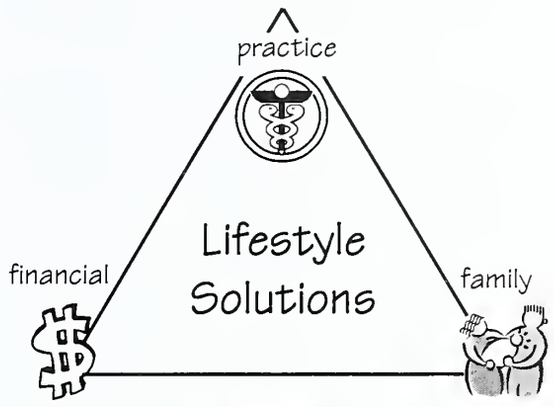

Acute Care Inc. ..... 75
Advanced Imaging/MRI Financial Services, Inc. ..... 3
Affiliated Community Medical Centers ..... 72
Albert Lea Medical Center ..... 66
Allina ..... 56
Allina Continuing Education ..... 53
Allina Hospice ..... 20
Altru Health System ..... 9
Aspen Medical Group ..... 25
Avera Health ..... 72
Brainerd Medical Center ..... 53, 72
CentraCare Clinic ..... 39
Consulting Radiologists, Ltd. ..... 13
Delacore Resources ..... 40
Emergency Practice Associates ..... 75
First Call Physicians, Inc. ..... 68
Hazelden Foundation ..... 42
HealthEast Hospice Care ..... 56
HealthPartners Ludlow ..... 44
Hospice of the Twin Cities ..... 25
Jordan Chiropractic Center ..... 37
Leonard, Street & Deinard ..... 12
Management Services by Choice ..... 69
Mankato Clinic ..... 74
Medical Protective Co. ..... 32
MeritCare ..... 20
Midwest Medical Insurance Co. ..... 5, 54
MMA Membership ..... Cover 3
MMBR ..... 41, 49, 64, 67, 71, 73
Montevideo Clinic ..... 74
Multicare Associates of the Twin Cities ..... 20, 40
North Memorial Health Care ..... 68
Owatonna Clinic-Mayo Health Systems ..... 74
Parker Hughes Cancer Center ..... Cover 4
Preferred One ..... 68
ProMedicus System ..... 20
Regions Hospital ..... 31
Riverwood Healthcare Center ..... 39
Vencor ..... Cover 2
Weisman Art Museum ..... 21
Whitesell Medical Locums, Ltd. ..... 36
Winona Clinic Ltd. ..... 68



## Send your ads by e-mail ...

*Minnesota Medicine* accepts classified ads by e-mail. Send your line ads to kleonard@mnmed.org (see page 70 for rates and deadlines). For display advertisements, contact Michele Holzwarth at 612/362-3880 or 800/342-5662.

P R O V I D I N G




**SOLUTIONS**

• **Emergency Medicine** • **Locum Tenens**

***ACUTE CARE, INC.***

For more information, please call
**800.729.7813 or 515.964.2772**
e-mail address: jeffw@acutecare.com
home page: http://www.acutecare.com

## Emergency Medicine Opportunities

**Emergency Practice Associates** provides quality emergency physician services. Our physicians work as independent contractors in a growth-oriented, physician-supported environment.

***full time opportunities***

| | |
|---|---|
| *GRAND RAPIDS, MN* | **Itasca Medical Center**<br>Medical Director and Staff Physician |
| *HIBBING, MN* | **University Medical Center–Mesabi**<br>Staff Physician |
| *LITTLE FALLS, MN* | **St. Gabriel's Hospital**<br>Medical Director and Staff Physician |
| *NEW ULM, MN* | **New Ulm Medical Center**<br>Medical Director and Staff Physician |

***part time opportunities***

| | |
|---|---|
| *AITKIN, MN* | **Riverwood Health Care Center** |
| *CROSBY, MN* | **Cuyuna Regional Medical Center** |
| *ST. PETER, MN* | **Community Hospital & Health Center** |

EMERGENCY PRACTICE ASSOCIATES
BOX 1260
WATERLOO, IA 50704
FAX: 319-236-3644

**Call the recruiting specialist today at 1-800-458-5003**
www.epamidwest.com

# Invention Techniques for People Who Aren't Named Edison

James Kaufmann, Ph.D.

With this issue begins a brief series of columns devoted to the writing process. The primary goal is to help you with your nonscientific writing. You should also find something useful for any scientific writing you undertake.

## *A Stage Model of the Writing Process*

The writing process is often described as occurring in four stages: prewriting (or "invention," discussed below), writing, rewriting, and polishing. The stages don't necessarily proceed in lock-step fashion. For example, while rewriting, you may discover the need to return to invention and generate additional material. (Incubation also may be part of the process and can be offered as an excuse for procrastination.)

## *Invention: Finding Things to Say ...*

First you'll need to produce some content. Brainstorming and freewriting are two familiar invention techniques you can use. In brainstorming, one rapidly lists possible topics to discuss or points to make but does not evaluate them until later. In freewriting, one writes nonstop for 10 to 20 minutes. If you can't think of anything to write, write, "I can't think of anything to write." Like brainstorming, this technique encourages the creative faculty while trying to restrain the critical faculty (the voice in your head that mumbles, "You can't say that; that's dumb.").

Some professional writing starts where reading leaves off. You may want to respond in writing to a book or article you've read. Surveys and studies will generate grist for your writing mill, but you needn't conduct a formal investigation to have something interesting to say. Try keeping a journal. Spend a few minutes a day with it, jotting down thoughts, observations, and questions. Something as simple as this, with time, will help you gather momentum for writing.

After finding possible things to say, look for a focus. Review the material you've generated, seeking points and topics that are related. Identifying recurring themes and clustering related material together will help you see a pattern.

Another focusing technique is to "nutshell" your tentative meaning. As you play with ideas, you may get a sense of a main point. Nutshell it in a sentence or brief paragraph, perhaps beginning with the words, "My main point is ..." In addition, or alternatively, you could give your piece a title. This title, like a nutshelled message, is only tentative. But it's all you need at this stage of the process.

## *... and an Order to Say Them in*

Armed with material and a focus, you can think about organization. First, however, determine whether you must follow any rules regarding length, format, or organization. If you're writing for a professional journal, for example, study the instructions for authors. Then you're ready to outline.

Outlines can (but don't have to) follow the Roman numeral system you used in high school. You can transcribe onto index cards material written earlier and then order the cards. You can divide a piece of notebook paper into three columns, labeled "Beginning," "Middle," and "End," and make sure each topic or point is listed in one of the columns. Your outline can assume any physical form that makes sense to you. The important thing is to have one.

An outline will help you get off to a good start. But remember: An outline is just a plan, and sometimes plans change.

## *Get Rich Quick*

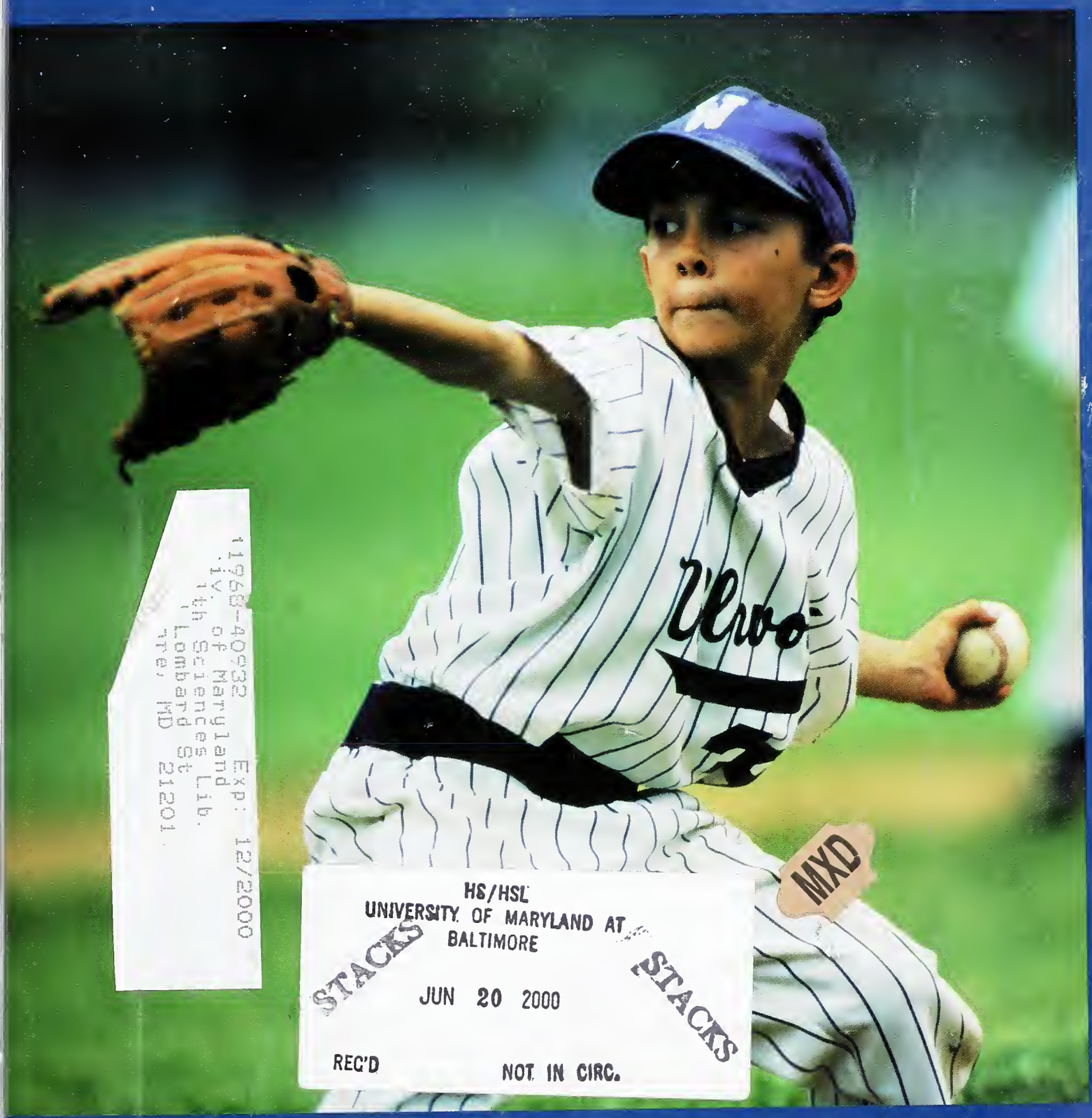
During invention, your goal is to become material-rich, to have more content than you need so you can choose only the best for your writing. If you're material-poor and, rather than generate more material, you're contriving to use everything you have, chances are you've got an inferior piece of writing in production. On the other hand, if you're discarding good material because it's not as good or as relevant as the material you're using, pause and savor the moment. MM

*James Kaufmann is an editor in the Section of Scientific Publications at the Mayo Clinic, in Rochester.* *Copyright 2000 Mayo Foundation*

SPORTS MEDICINE IN PRIMARY CARE • DIAGNOSING AND TREATING ADHD IN CHILDREN

# Minnesota Medicine

JOURNAL OF CLINICAL AND HEALTH AFFAIRS



11968-40632 Exp: 12/2000
Liv. of Maryland
Health Sciences Lib.
660 Lombard St
Balt, MD 21201

HS/HSL
UNIVERSITY OF MARYLAND AT
BALTIMORE
STACKS
JUN 20 2000
STACKS
REC'D
NOT IN CIRC.
MXD

## CHILD'S PLAY?

### KIDS, SPORTS, AND INJURY

JUNE 2000

# BREATHING (inhale)

SHOULD BE (exha

# THIS EASY.



Cultivate self-sufficiency. Renew independence where others have failed. And employ the region's most advanced program of intensive therapy. It's about teaching people to breathe on their own again. It's how Bethesda helps reinvent lives.

**BETHESDA REHABILITATION HOSPITAL**

800-566-2720

St. Paul, MN

HealthEast Care System

*Dedicated to Caring.*

www.healtheast.org

GERIATRIC MEDICAL/BEHAVIORAL · BRAIN INJURY · RESPIRATORY CARE · REHABILITATION

# Minnesota Medicine

Published monthly by the Minnesota Medical Association



COVER

*Photo by J. Wachter/Photo Researchers. Story, page 18.*

DEPARTMENTS

2 ..... Editor's Note

5 ..... Letters to the Editor

33 ..... MMA News & Views

67 ..... CME in Minnesota

71 ..... Classified Ads

74 ..... Index to Advertisers

BOOK REVIEW

**America's Speed Ways,** a review by Charles R. Meyer, M.D., page 65.

*In "Running on Ritalin," pediatrician and therapist Lawrence Diller, M.D., blames hectic lifestyles and chaotic family systems for the growing number of kids diagnosed with attention-deficit/hyperactivity disorder.*

FACE TO FACE

**8** **At the Heart of the Matter** ..... Dan Emerson

*Researcher and cardiologist Barry Maron, M.D., has devoted much of his career to making the rare occurrence of cardiovascular death in young athletes even less common.*

PERSPECTIVES

**12** **Major League Dreams: How Baseball Transforms a Physician Each Spring** ..... Jon Hallberg, M.D.

*Spring training transports this physician-fan back to boyhood.*

COVER STORY

**18** **Child's Play? Kids, Sports, and Injury** ..... Susan Gaines

*High-pressure kids' sports have created a demand for physicians with pediatric sports medicine expertise. Plus, the MMA on playing safer hockey and Gillette Children's on sports for kids with disabilities.*

FEATURE STORY

**26** **Mastering the Medicine of Motion** ..... Kristin Smith

*For many primary care physicians, sports medicine is no longer just a sideline.*

EDITORIALS

**42** **Kids Are Dying for Some Exercise** ..... Pete Egoscue

*Without enough unstructured, spontaneous motion, children are prey to a life of pain.*

**45** **Pharmacotherapy in ADHD: Guidelines for Prescribing Stimulant Medications in Young Children** ..... Gerald J. August, Ph.D., and George M. Realmuto, M.D.

*The practice of treating ADHD with drugs has sparked a heated debate, complicating the choices for physicians and their patients.*

CLINICAL AND HEALTH AFFAIRS

**47** **Preventing Upper Extremity Overuse Injuries in Child and Adolescent Athletes** ..... Andrew J. Thomas, M.D., F.A.A.P., and George R. Biltz, M.D.

**51** **Diagnosing and Treating ADHD in Children** ... David C. Agerter, M.D., and Norman H. Rasmussen, Ed.D., L.P.

**57** **Diagnosing Childhood Attention-Deficit/Hyperactivity Disorder: Do Family Practitioners and Pediatricians Make the Same Call?** ..... Bruce Evink, MS-IV, Byron J. Crouse, M.D., and Barbara A. Elliott, Ph.D.

HOBBIES & LEISURE

**76** **Llama Lover** ..... Howard Bell

*Pathologist Jon Wogensen, M.D., is a llama farmer and aficionado.*

# A League of Our Own

Ah, the familiar crack of the bat, a sound that signals the start of summer—the season of America's favorite game. The very sound triggers in my mind a comparison between our national pastime and health care. They actually have a lot in common: Both baseball and medicine are big businesses. Both employ well-paid professionals. And both touch large chunks of the American public. However, at least on the national level, one is thriving and the other is struggling. Multimillion-dollar showplace ballparks like Baltimore's Camden Yards are proliferating in major markets while hospitals and nursing homes are closing. Baseball franchises in many towns are flush while HMOs are going bankrupt. Corporations pay gazillions for stadium suites while clamping down on health insurance costs. And each year brings record salaries to baseball's super- and even so-so stars while reimbursements to physicians shrink.



*"Each year brings record salaries to baseball's super- and even so-so stars while reimbursements to physicians shrink."*

Baseball, despite its flaws, is doing something right. Maybe those of us in health care could take a "pitching" lesson from our fellow professionals. Here are some ideas medicine could borrow from baseball. For one, we need stars. Just as baseball has its McGwires and Sosas, medicine has its Cooleys and DeBakeys, but they're essentially retired. We need to recruit replacements, and not just from the traditional ranks of surgeons. After all, in baseball it's not just the pitchers who make the big bucks. I suggest that each residency program target a few potential superstars and hire agents to negotiate contracts for them that would include large clinic suites, frequent press conferences, signing bonuses, and appearances with David Letterman and Larry King. Medicine would hit the big time!

We also need new and better stats to track our superstars. Not just the same dull "percent mortality" or "length of stay." Think creative. We might track "rare diagnoses made per patient seen," for example, or "least blood loss per operation." The PR potential is staggering.

We need medical pundits and broadcasters. Think about a Tim McCarver analyzing the soporific skills of an anesthesiologist. Picture a Sid Hartman speculating whether Dr. Wonderful will stay with the Mayo Clinic or move to Cleveland. And the thought of a Jack Brickhouse yelling "Hey, hey" when the colon cancer is dramatically extracted brings shivers.

Of course, we'll need a few Steinbrenners in hospital administration. Oh, I know George is a bit crusty, but he does attract attention to his team and his sport. How many notorious hospital administrators can you name? The only hospital administrators who make news are those summarily fired by their boards or convicted of embezzlement. We need some clean, but outlandish, administrators. Think about the spotlight-grabbing potential of an obnoxious hospital CEO who badmouths the competition, his staff doctors, and his COO yet manages to attract enough capital and talent to run a good hospital.

I know these ideas may seem extreme. But they only reflect what we already know: Americans like entertainment, and they are willing to pay for it. My proposals could resuscitate American health care and make it a thriving enterprise, perhaps even bring back the quaint old concept of paying at the gate.

I have some other ideas, too: I don't know how we will work in the exploding scoreboard, but high-fiber popcorn is a must. ...

*–Charles R. Meyer, M.D., Editor-in-Chief*

# Helping make MRI diagnostic affordable for everyone.

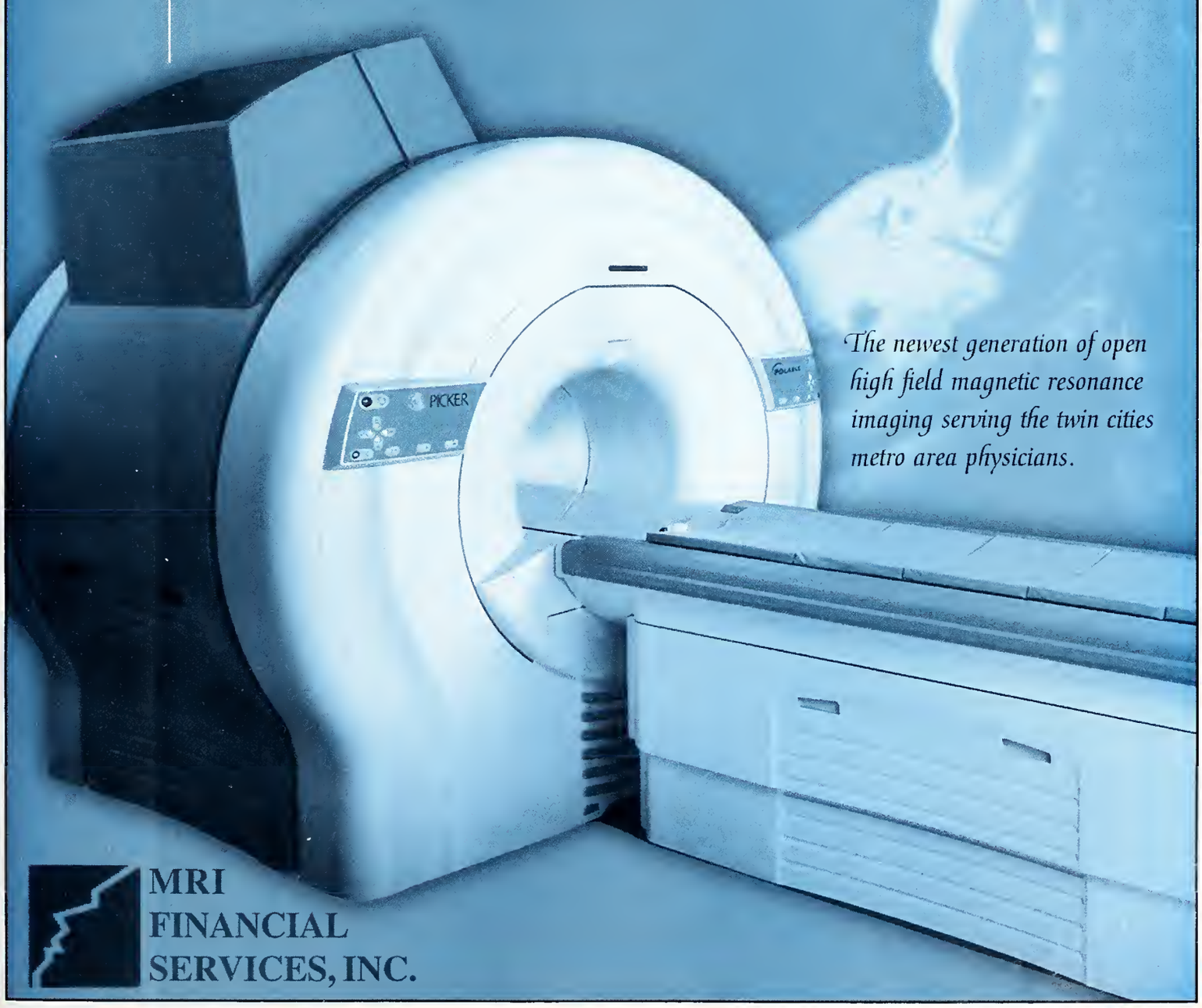
## For patients without Insurance

249,000 Minnesotans are uninsured, including 71,000 who are under 21.

Immediate Financial Approval

To make referrals for patients with no insurance call:

(612) 529-6000
(651) 647-0000
FAX: (651) 647-1111




*The newest generation of open high field magnetic resonance imaging serving the twin cities metro area physicians.*

**MRI FINANCIAL SERVICES, INC.**

# *Minnesota Medicine*

Published monthly by the Minnesota Medical Association

*Owner and Publisher*
Minnesota Medical Association

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Managing Editor*
Meredith McNab

*Associate Editors*
Margaret Parker
Carmen Peota

*Publications Assistant*
Katie Leonard

*MMA News & Views Editor*
Lorrie Holmgren

*MMA News & Views Writer*
Cynthia Lehman

*Graphic Designers*
Katie Leonard
Susan Rodsjo

Send manuscripts, subscriptions, and other material for consideration to *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/378-1875. E-mail: mm@mnmed.org
The editors reserve the right to reject editorial, scientific, or advertising material submitted for publication in *Minnesota Medicine*. The views expressed in this journal do not necessarily represent those of the Minnesota Medical Association, its editors, or any of its constituents. Annual subscription–$40. Single copies–$3.50. Canadian–$70. Foreign–$70.

*To Advertise:* Contact Michele Holzwarth, *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/623-2880 or 800/DIAL MMA (342-5662).



**Advisory Committee**

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Advisory Committee*
Charles R. Meyer, M.D.
Edmund C. Burke, M.D.
Richard C. Lussky, M.D.
Lynne Ogawa, M.D.
Paul S. Sanders, M.D.
Leif I. Solberg, M.D.
Barbara P. Yawn, M.D.
Meredith McNab, staff

*Editors Emeritus*
Edmund C. Burke, M.D.
1991-1993

Richard L. Reece, M.D.
1975-1990

Reuben Berman, M.D.
1971-1974

Carl O. Rice, M.D.
1961-1970



**Copyright & Post Office Entry**

*Minnesota Medicine* (ISSN 0026-556X) is published on the fifth of each month by the Minnesota Medical Association, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761, copyright 2000. Permission to reproduce editorial material in this magazine must be obtained from *Minnesota Medicine*. Periodicals postage paid at Minneapolis, Minnesota, and at additional mailing offices. POSTMASTER, send address changes to *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761. (USPS 3519000.)



MINNESOTA MEDICAL ASSOCIATION

**1999–2000 Officers**

*President*
John M. Van Etta, M.D.

*President-Elect*
Blanton Bessinger, M.D.

*Chair, Board of Trustees*
Robert K. Meiches, M.D.

*Vice President*
Kevin C. Fleming, M.D.

*Secretary*
David L. Estrin, M.D.

*Treasurer*
Noel R. Peterson, M.D.

*Speaker of the House*
Gary D. Hanovich, M.D.

*Vice Speaker of the House*
Rebecca Jean Hafner, M.D.

*Past President*
Judith F. Shank, M.D.

*Chief Executive Officer*
Paul S. Sanders, M.D.

**MMA Senior Staff**

*Director of Communications*
Lorrie Holmgren

*Chief Financial Officer*
George C. Lohmer Jr.

*Director of State and Federal Legislation*
David Renner

*Director of Health Law*
Christina F. Rich, J.D.

*Director of Health Economics and Policy Analysis*
Janet Silversmith

*Director of Executive Office*
Karen A. Tourdot

**Alliance**

*President*
Diane Gayes

*President-Elect*
Pam Schmidt

**Board of Trustees**

*N.W. District*
Jerry P. Rogers, M.D.

*N.E. District*
James L. Anderson, M.D.
Charles R. Helleloid, M.D.

*N. Central District*
James J. Dehen Jr., M.D.
Keith D. Larson, M.D.

*West Metro*
Lee Beecher, M.D.
Karen K. Dickson, M.D.
John W. Larsen, M.D.
Robert K. Meiches, M.D.
Henry T. Smith, M.D.

*East Metro*
Thomas Dunkel, M.D.
Joseph L. Rigatuso, M.D.

*S.W. District*
Terence P. Cahill, M.D.
Elton G. Wing, M.D.

*S.E. District*
Peter Amadio, M.D.
G. Richard Geier Jr., M.D.
Kimberly McKeon, M.D.

*Resident Member*
Andrew G. Moore, M.D.

*Medical Student*
Joel V. Oberstar

**AMA**

*AMA Delegates*
Robert D. Christensen, M.D.
Frank J. Indihar, M.D.
Carolyn J. McKay, M.D.
Lyle Munneke, M.D.
Audrey M. Nelson, M.D., *Chair*
Thomas L. Peyla, M.D.
Andrew J.K. Smith, M.D.

*AMA Alternates*
Raymond G. Christensen, M.D.
Kenneth W. Crabb, M.D.
Anthony C. Jaspers, M.D.
Paul C. Matson, M.D.
Sally Trippel, M.D.
John M. Van Etta, M.D.
Benjamin H. Whitten, M.D.



**MMA Address**

Minnesota Medical Association
3433 Broadway Street NE, Suite 300
Minneapolis, MN 55413-1761
Phone: 612/378-1875 or 800 DIAL MMA (342-5662)
Fax: 612/378-3875
E-mail: mma@mnmed.org
Web site: www.mnmed.org



## Whiplash Backlash

Dr. David Ketroser's review[1] of cervical zygapophyseal (facet) joint disorders highlights an important cause of persistent neck pain after injury. This concept is well-recognized among those who treat spine pain. I have had gratifying results in selected patients who received facet joint injections for chronic neck (and back) pain.

The author attempts to reduce the complex problem of chronic neck pain to a single cause—the facet joint. In doing so, he makes inaccurate statements of fact and concept that deserve comment.

A main thesis of the article denies a muscular basis for chronic neck pain, stating that "chronic muscle strains are a medical fiction that should be relegated to the historical scrap heap with phrenology and Laetrile." This opinion ignores the importance of cervical muscle myofascial trigger points as a cause of persistent neck pain. This concept, first developed by Janet Travell, M.D., personal physician to President John F. Kennedy, is detailed in a two-volume text.[2,3] In a recent survey of members of the American Pain Society, physicians from various medical and surgical specialties with a subspecialty interest in chronic pain, 88.5 percent agreed that myofascial pain syndrome is a legitimate diagnosis and cause of chronic pain.[3]

Myofascial trigger points, painful localized regions of muscle fiber shortening that result from acute or repetitive trauma, are easily identified by palpation of the appropriate muscle during a careful physical examination. Most patients referred to me with chronic neck pain and associated headaches who undergo myofascial therapy by a skilled physical therapist respond with good to excellent results. Additional work with myofascial trigger point injections with subsequent post-injection therapy is sometimes needed for further improvement. My experience has been quite positive in this regard and clearly points to the cervical musculature as a source of chronic neck pain.

The author presents two reasons why he believes that muscle injury does not cause persistent neck pain: (1) the posterior location of chronic neck pain and (2) lack of chronic extremity muscle strain pain.

As to the posterior predominance of cervical pain, Ketroser reasons that the sudden backward thrust of the head during a rear-end collision causes facet rather than posterior muscle injury. It is quite likely that both events occur. While the initial action with a whiplash injury is hyperextension of the neck, the subsequent hyperflexion of the cervical spine is just as violent. The resulting flexion stress injures the posterior cervical muscles, producing myofascial trigger points. The number of paired cervical muscles in the posterior region (20) exceeds the number of anterior paired muscles (8). By numbers alone, patients are more prone to posterior cervical muscle pain. Further, many patients also complain of lateral cervical and suprascapular pain. Examination of the muscle groups in these areas (e.g., scalenes, levator scapula, suprascapular portion of the trapezius) reveals prominent trigger point areas of pain. Finally, the sternocleidomastoid (SCM) muscle, a predominately anterior muscle, is frequently injured during rear-end collisions. While the patient may complain primarily of posterior or lateral cervical pain, examination of the SCM reveals myofascial trigger points and corresponding discomfort.

The second reason Ketroser presented to disprove a muscular cause for chronic cervical pain is the lack of chronic extremity pain caused by muscle injury. This point is also incorrect. Often, patients referred to me for neurologic evaluation with persistent extremity pain have myofascial trigger points localized to the area of discomfort. Appropriate myofascial therapy commonly abolishes or greatly diminishes the pain. The identification and treatment of myofascial trigger in the legs is the subject of the entire second volume of Travell's work.[3] Muscular myofascial trigger points are responsible for chronic arm and leg pain and are often misdiagnosed as radicular or neuropathic in origin.

These are not mutually exclusive concepts. I have cared for many patients who have both muscular and facet causes for their chronic neck pain. The patient obtains optimal relief only by treatment of both problems. For treatment to be complete, discogenic pain also should be considered as a source of chronic cervical pain.

Dr. Ketroser's article would have been much more helpful as a review of traumatic cervical facet pathology that included a description of the author's experience in a statistical, controlled study using facet injections in a chronic neck pain population. The work's lack of any new information, the inaccuracies with regard to the role of muscular components in chronic pain, and its peculiar adversarial tone detract from the article's value to clinicians. ⇨

We're Looking for a Pediatric Neurologist to Join our Team

Gillette Children's is seeking an experienced BC/BE pediatric neurologist to provide care for children with a variety of neurological and neuromuscular conditions. This part- or full-time position would include work in both the inpatient and outpatient settings as well as consults to the PICU.

Gillette Children's is a regional referral center for children, adolescents and young adults with physical and functional disabilities. A multidisciplinary team of physicians and ancillary health care providers collaborate and coordinate care in providing treatment to our patients. Gillette offers a competitive compensation and benefits package.

For confidential consideration, please send your CV to **Gillette Children's Specialty Healthcare, 200 East University Ave., St. Paul, MN 55101, Attn. Mary Martin**. Or send it via e-mail to mmartin@gillettechildrens.com or by fax to (651) 290-8700.

For additional information, please call Mary Martin, vice president of Human Resources, at (651) 229-1722.

Gillette Children's
Specialty Healthcare

www.gillettechildrens.org

References
1. Ketroser DB. Whiplash, chronic neck pain, and zygapophyseal joint disorders: a selective review. Minn Med 2000;83(2):51-4.
2. Travell JG, Simons D. Myofascial pain and dysfunction. The trigger point manual. Baltimore, MD: Williams and Wilkins, 1983.
3. Travell JG, Simons D. Myofascial pain and dysfunction. The trigger point manual: the lower extremities. Baltimore, MD: Williams and Wilkins, 1992.
4. Harden RN, Bruehl SP, Gass S, Niemiec C, Barbick B. Signs and symptoms of the myofascial pain syndrome: a national survey of pain management providers. Clin J Pain 2000;16:64-72.

*Jack E. Hubbard, M.D., Ph.D.*
*The Minneapolis Clinic of Neurology, Ltd.*
*Burnsville, Minnesota*

## Muscles *Can* Be a Pain in the Neck

I thank Dr. Hubbard for his comments. And I concur with his position that muscles can be a source of chronic pain after whiplash.

CARDIOLOGIST

An exceptional opportunity exists for a Cardiology (non-invasive) physician in this picturesque northwoods and lakes region. A commitment to quality healthcare and unlimited recreational activities provide you a superior lifestye.

This opportunity includes excellent salary and benefit package.

Duluth has a population of 85,000 and a service area of 430,000. This practice is affiliated with St. Luke's Hosptial & Regional Trauma Center, a regionally designated Level II, JCAHO Trauma Center

**For More Information contact:**
Vicki Trauba
Recruitment Specialist
St. Luke's Hospital and Regional Trauma Center
915 East First Street
Duluth, MN 55805
Phone: 800-997-6685 • 218-727-9390
Fax: 218-727-9392
E-mail: vtrauba@ruralcenter.org

Board Certified/Board Eligible,
Non HPSA/MUA Opportunity

***Member of CareNorth Health System***

My position, as stated in my article,[1] is that the primary pain source for 60 percent of whiplash patients with chronic headaches and neck and upper back pain is a zygapophyseal joint (Z joint) injury. This does not imply that muscles don't also hurt, nor that treatment of the muscle pain with various modalities does not provide symptomatic relief.

The Z-joint testing and treatment endorsed in my article is offered to patients who have failed conservative care for at least four to six months, and often longer. It is a highly effective approach that is deferred until later because recovery, or effective long-term self-care, is preferred to almost any long-term medical care. My interest in writing the article was to add an effective tool for the treatment of unsuccessfully treated chronic pain patients, not to eliminate the currently available tools.

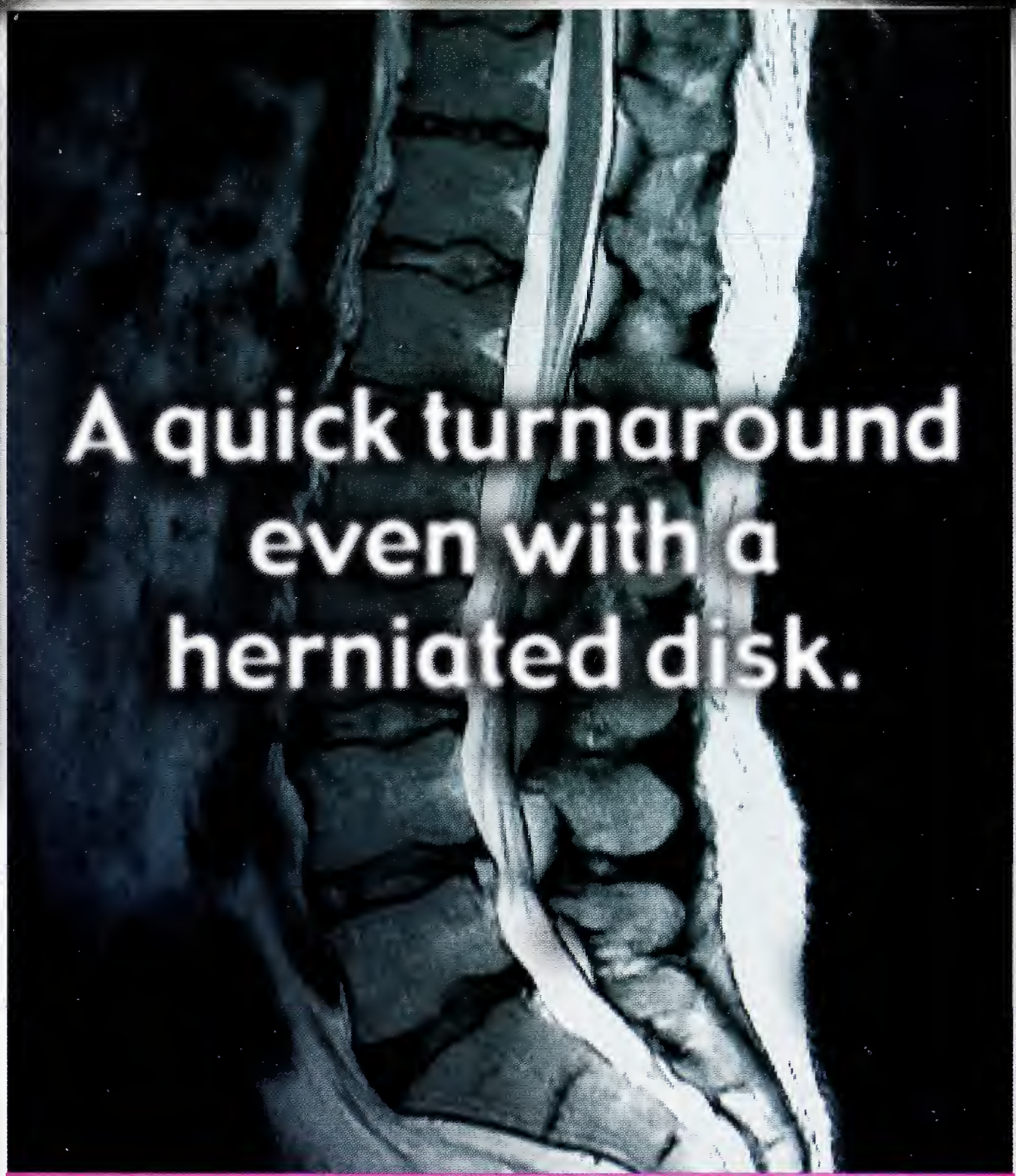
*David B. Ketroser, M.D.*
*Neurology*
*Physicians Spine Care*
*Hopkins, Minnesota*

Reference
1. Ketroser DB. Whiplash, chronic neck pain, and zygapophyseal joint disorders: a selective review. Minn Med 2000;83(2):51-4.

## In Memoriam

We are sad to note that Susan A. Brock, Ph.D., of Edina, Minnesota, died on May 4 at age 52 after a long struggle with cancer.

Dr. Brock, a psychologist and expert on the Myers-Briggs Type Indicator who consulted worldwide on improving communication, relationships, and organizational effectiveness, co-authored an article in the May 2000 *Minnesota Medicine* about the use of psychological type to enhance physician-patient communication. She is survived by her husband, James, daughter, Meredith, and son, Evan.



# A quick turnaround even with a herniated disk.

Introducing **Edina Imaging Center,** the newest member of **Consulting Radiologists, Ltd.** and the only place where quick results are guaranteed. We'll bend over backwards to get you a complete diagnosis within 24 hours, or else we'll donate $100 to the charity of your choice. To get the inside details on our full range of services, call 952-831-9300.

## Edina Imaging Center

**24 HOUR RESULTS**
GUARANTEED

Subject to certain terms and conditions.

# At the Heart of the Matter

Researcher and cardiologist Barry Maron, M.D., has devoted much of his career to making the rare occurrence of cardiovascular death in young athletes even less common.

In 1976, the sports world was rocked when University of Maryland basketball players Owen Brown and Chris Patton unexpectedly died of cardiac arrest within the space of two months. What abruptly ended the lives of Brown and Patton also altered the career of cardiologist Barry J. Maron, M.D. The deaths of the two young men were extremely rare events—after all, young competitive athletes apparently in peak physical condition seem the least likely to be struck down—and piqued the curiosity of Maron, then an investigator and staff cardiologist at the National Institutes of Health's National Heart, Lung and Blood Institute.

Thus began a marathon quest for answers that continues today for Maron, who has been director of the Minneapolis Heart Institute's Cardiovascular Research Division since 1993. Maron's research on sudden cardiac death, especially among people younger than age 35, has been internationally recognized. It has also led to tighter preparticipation health screening of high school and college athletes.

Before 1980, when Maron's initial paper on sudden cardiac death in young athletes was published, the cause of these rare deaths was not well understood. "It was largely believed that these deaths were part of some kind of sudden death syndrome," says Maron, taking a break in his office on the ground floor of the Heart Institute building, where he's surrounded by stacks of research reports and other paperwork. "There is no such syndrome. It's a matter of certain structural cardiovascular diseases that have gone unrecognized in individuals who happen to have trained and competed as athletes."

Intense exertion is the trigger in such fatalities, Maron says, noting that 90 percent of sudden cardiac deaths occur on the playing field, in a game, or during practice. However, the same diseases also cause deaths in young people who are not athletes.

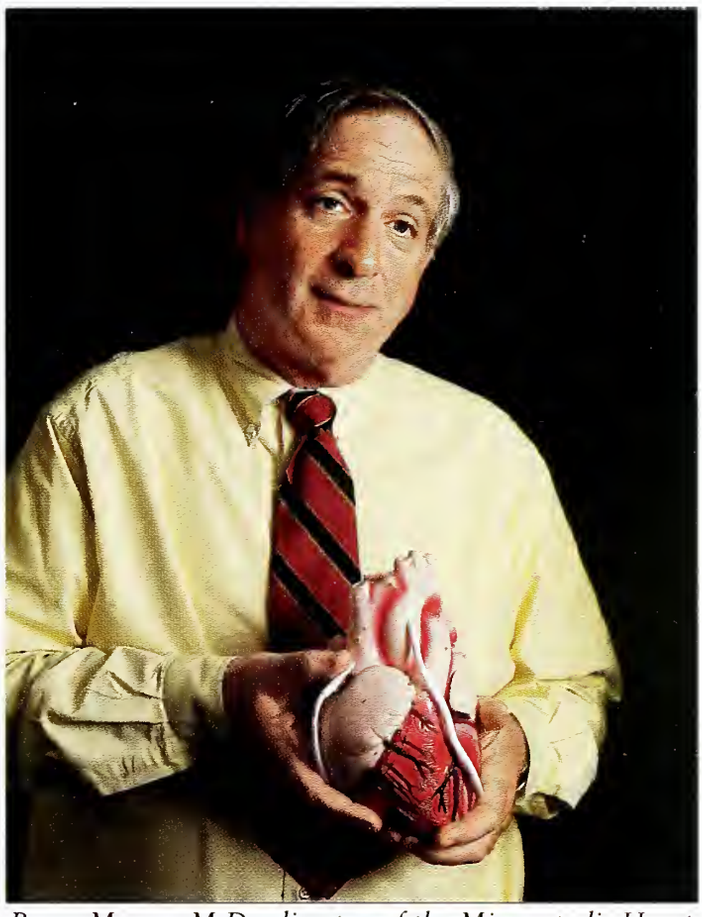
"These deaths are rare," Maron emphasizes. "The reason this is an important problem is that the theoretical 'at-risk' group is huge." There are about 10 million competitive athletes in the United States, he says.

## *Screening Athletes*

Over the past 20 years, Maron has studied health screening for young athletes extensively. His major study of screening practices for competitive student

By Dan Emerson

athletes—a survey of 1,110 National Collegiate Athletic Association member colleges and universities (with Glen Pfister)—concluded that the process used by many U.S. colleges and universities "may have limited potential to detect (or raise the suspicion of) cardiovascular abnormalities capable of causing sudden death in student athletes." For example, more than half the college and high school screening forms Maron and Pfister examined contained no questions about family history of sudden death from cardiac disease. "In some cases, the forms used are decades old," says Maron. "Some appear to have been constructed without regard to the data on sudden death in athletes that have been assembled." Maron co-authored an earlier landmark study that revealed major inadequacies in the preparticipation cardiovascular screening of high school athletes in a number of states.



PHOTOGRAPH BY JOHN NOLTNER

*Barry Maron, M.D., director of the Minneapolis Heart Institute's Cardiovascular Research Division.*

Maron chaired the American Heart Association committee that developed the 1996 guidelines for cardiovascular preparticipation screening of young competitive athletes. These are recommendations to refine screening forms to "ask the right questions." An expert document to help clinicians screen for cardiac abnormalities in high school and college athletes is available from the American Heart Association; 800/AHA-USA1.

Maron has also helped establish a national registry encompassing about 20 cardiovascular abnormalities that could cause sudden death in athletes younger than 35. Calculating the incidence of such deaths is difficult. However, in a retrospective study of deaths among Minnesota high school athletes over a 12-year period, Maron reported the rate of cardiovascular deaths at 1 in 200,000 competitive athletes per academic year, using Minnesota State High School League records maintained in connection with indemnity policies carried on all athletes.

"The relatively low number gives some comfort but doesn't really lessen the importance of this work," says Maron, who has published nearly 500 articles on his research in various areas of cardiology. "Certainly, we have the opportunity to impact large numbers of people through some of this research," he adds, alluding to the millions of competitive athletes—and their families—worldwide.

## *Resistance to Change*

Have Maron's findings prompted schools and athletic conferences to improve their screening procedures? "There has been some change," he says. The Minnesota High School League, for example, has improved its screening requirements in response to his recommendations. On the other hand, large national organizations responsible for athletes—the NCAA and the National Federation of High Schools—have shown little interest in improving screening.

Maron is somewhat puzzled that there isn't more interest in addressing this clear health threat of cardiovascular disease in athletes. "There's a lot of money involved in college and professional sports, such as all those pressures we saw in the U of M basketball scandal," he says. "We elevate elite athletes to celebrity status, and there's an enormous amount of money attached to it."

Those pressures are familiar to physicians treating

## *At a Glance*

**Barry J. Maron, M.D.**

Age: 58

**Education:** B.A., Occidental College
M.D., Tulane Medical School

**Family:** Donna, his wife of 32 years, is a home-maker with a graduate degree in social work.

Son Marty, 28, is a resident in internal medicine, at Barnes-Jewish Hospital in St. Louis, and a graduate of Tulane Medical School and Johns Hopkins University.

Son Bradley, 25, will be a second-year medical student at Brown University School of Medicine and is a graduate of Williams College.

injuries in athletes, Maron says. "You have to be able to treat athletes as if they were ordinary people with medical problems. But the season's going on and the big game is coming up. There are many extrinsic pressures that contaminate a normal medical approach to the problem of eligibility of athletes with cardiovascular disease."

## *Concussion of the Heart*

Recently, Maron has focused on defining an extremely rare life-threatening cardiac risk that is unrelated to disease: *commotio cordis,* or "concussion of the heart." Usually, modest blows to the chest would not be expected to cause injury. But when such a blow occurs just over the heart at a specific moment in the heart cycle (within a 15-millisecond window), it can trigger ventricular fibrillation. A baseball or hockey puck striking the chest has caused death in some youths. Most victims are children or teenagers, in whom the chest is not yet fully developed. Only about 10 percent survive, and then only if they receive timely resuscitation.

Maron has established an international registry to document each case of *commotio cordis* (102 so far). Some of the cases have sparked litigation. In one such case, Maron testified on behalf of a Washington, D.C., man who delivered a light blow to the chest of his son, accidentally killing him. The father pleaded guilty to involuntary manslaughter and was sentenced to six to 18 years in prison.

In another case, a 44-year-old schoolteacher, trying to break up a fight between two students, died from an inadvertent elbow to the chest from a 14-year-old girl. Maron also heard from a woman in Berkeley, California, whose child died 40 years ago from a similar blow, at the time a mysterious accidental death. "It's one of those hidden risks of life that wasn't very well defined."

Maron, who played Division III basketball in college years ago, says it was his interest in sudden cardiac death rather than sports that drew him to what has become a major career focus. Still, he could be said to share some qualities with successful athletes—perseverance and a passion for the game—in his case, the quest for scientific answers to relevant questions. **MM**

*Dan Emerson is a freelance editor and writer in Minneapolis.*

## *Suggested Reading*

1. Maron BJ, Roberts C, McAllister HA, Rosing DR, Epstein SE. Sudden death in young athletes. Circulation 1980;62:218-29.
2. Glover DW, Maron BJ. Is preparticipation screening for cardiovascular disease adequate in U.S. high schools? J Am Coll Cardiology 1998;31(Suppl A):133A.
3. Maron BJ, Poliac L, Kaplan JA, Mueller FO. Blunt impact to the chest leading to sudden death from cardiac arrest during sports activities. N Engl J Med 1995;333:337-42.
4. Pfister GC, Puffer JC, Maron BJ. Preparticipation cardiovascular screening for US collegiate student-athletes. JAMA 2000;283:1597-9.
5. Maron BJ, Gohman TE, Aeppli D. Prevalence of sudden cardiac death during competitive sports activities in Minnesota high school athletes. J Am Coll Cardiol 1998;32:1881-4.




# Regions Hospital Direct

## 24-Hour Physician-to-Physician Hotline 1-888-588-9855

At Regions Hospital, we provide physicians with new and better ways to care for patients. Regions Hospital Direct is a toll-free physician hotline that gives doctors throughout Minnesota and the region 24-hour access to physician consultation, information and referral services. Whether you need to consult a specialist, check on a patient's progress, transfer a patient to the Emergency Center or initiate admission of a patient, you're just a phone call away with Regions Hospital Direct. It's one more way Regions Hospital works with physicians to be the hospital of choice in the community.




*Building To Be The Best*

Regions Hospital®

640 Jackson Street, St. Paul, MN

© 2000 HealthPartners, Inc., Minneapolis, MN

# Major League Dreams

## How Baseball Transforms a Physician Each Spring

*By Jon Hallberg, M.D.*

As game time nears I head for my seat. Though I've been here many times before, I still experience a moment of exhilaration when I see the field laid out before me for the first time each spring. Grown boys in crisp uniforms are throwing and catching and hitting and laughing on the emerald green carpet. The outfield fence, covered with quaint advertisements, encloses this magical place. Above is the intensely blue sky. When I'm by myself, as I am today, I often sit in the first or second row, to the right of the dugout, to the left of the backstop. I could not be any closer to the game. I am in heaven.

*I am at the Minnesota Twins spring training camp in Fort Myers, Florida.*

For the past four years I have made this journey, not because I am a baseball nut (though I do love the game), but because I am the Employee Assistance Program (EAP) physician for the Twins. Though I maintain a professional front here at spring training, inside I am filled with the excitement of a child. There is something transformative about traveling to the warm, sunny southwest coast of Florida, fleeing the gray, wet nether season that describes Minnesota in March, to hang out with baseball players. My clock-watching, RVU-minding self is liberated and I become a kid again.

I am a boy of 8, living in Belgium and playing for the Rams or the Panthers in the Brussels Baseball Association with my old teammates, Jimmy Thompson, Teddy Vialba, and Becky Cook. I am eating a hot dog and drinking a Coke after the game, and the knees of my two-piece flannel uniform have green and orange stains that my mom will lovingly remove before the next weekend's game.

Though this "kid" now has formal presentations to give and medical advice to dispense, this place and this game keep me young. At spring training I have rediscovered the joy of baseball and an old enthusiasm I had lost sometime around 1978. All that is right and good and fun about the game is here. All that is so terribly wrong with the game is, momentarily, forgotten.

Basically, as the EAP provider, I care for the psychosocial needs of the team. By team, I mean the major and minor league players, the coaches and field staff, the trainers, and any of their spouses or children—about 500 people in all. I am part referral specialist, part counselor, part family physician. Perhaps most important, I am simply available, 24 hours a day. (My role is distinct from that of the "true" team doctors, orthopedists John Steubs and Dan Buss, and occupational medicine specialists Tom Jetzer and VeeJay Eyunni.)

A chance encounter led me to the job. When I was a third-year resident doing a rheumatology rotation in Minneapolis, I met the previous Twins' EAP provider. After more than a decade on the job, he was ready to retire. He asked me if I might want the job. It didn't pay anything, he said, and I'd be fairly "invisible," since the job carried a bit of a stigma. (No ballplayer wants anyone to think he needs *that* kind of help.) But every year I'd get to go to spring training, I'd get to stay in the team hotel, and I'd get a car, food, and a per diem for the week. And my wife and son could join me. On top of that, I'd get to go to the annual Winter Baseball Meeting, attend any home game I wanted to for free, and park my car at the Dome. Of course I wanted the job! And several months later, I got it.




PHOTOGRAPH BY JON HALLBERG, M.D.

*Minnesota Twins spring training camp, Fort Myers, Florida. In this magical place, all that is so terribly wrong with the game is, momentarily, forgotten.*



PHOTOGRAPH BY JON HALLBERG, M.D.

*"Whenever I can, I try to get to the park early in the morning. The fields are a perfect velvet green, the clay a rich orange-red, the sky a deep, pure blue. At this time of day, before the crowds arrive, this place has a Zen-like tranquillity."*

During spring training, I spend my days in Fort Myers at the Lee County Sports Complex, just off Six Mile Cypress Parkway. As you approach it from the north, the first thing you see is Bill Hammond Stadium. Reminiscent of a Southern plantation home, the 7,500-capacity stadium beckons from the road. Flags fly from the outfield. A jet of water soars in a pond out front, a couple of alligators lie lazily on the muddy shore. A row of majestic palm trees guides fans to the front gates, and on game days, a fountain cascades just beyond the palms. Red, white, and blue banners gently flap in the breeze. Vendors hawk programs and caps. The smell of brats fills the air. The stadium, bustling with activity, is the jewel in this stunning crown of a complex. This is where the major league players get in shape and where those who have a shot at the Bigs must prove their worth.

On any given day I'm likely to be sitting next to a snowbird up from Naples, a spring-breaker over from Fort Myers Beach, or my uncle's neighbors from Forest Lake. I share the stadium with men's college baseball teams and women's softball teams, down for their own spring training programs. They come from New Hampshire, Indiana, Iowa, and Massachusetts, and, of course, in largest numbers from Minnesota. There are vacationing families taking a break from the craziness of Orlando. And there are the occasional diehard fans and autograph hounds—easy to spot with their faded T-shirts, three-ring binders, and ink-stained hands. Agents are recognizable by their sunglasses, cell phones, and gold jewelry, and scouts by their radar guns and stopwatches. We are an eclectic bunch and we are having fun. The warmth of the sun, the gentle breeze, the pace, the ritual—they draw us to the game like a tonic we can't refuse.

Across the expansive, grassy parking lot, whose rows are named for Twins greats, sits the minor league facility—a small administration building, locker rooms, trainers' rooms, and batting cages, all surrounded by three full fields and one half field. The nondescript brown buildings have a military look. And maybe that's fitting, since spring training is essentially boot camp. One would be excused for thinking that the players look a bit like young recruits. They jog from drill to drill under the command of their sergeant-coaches, carrying bats that could be mistaken for weapons.

A barely perceptible tension hangs over the minors, where young men's dreams are made—and dashed. The focal point is a 30-foot-high blue metal tower, which dominates the minor league side. From its observation deck, coaches and staff watch the players on the vast fields below, deciding which kid has promise and which one doesn't.

These decisions generate some of my EAP business, most of which comes from the minor league players. Expectations of parents, girlfriends, and hometown fans often clash with a young man's own dreams and abilities. Most will make less than $1,000 a month for four to six months; the rest of the year they must live on their signing bonuses, odd jobs, or the generosity of family. (In sharp contrast, the major league players are guaranteed a $200,000 minimum salary and on average make

$1 million per year.) Most of these guys are here simply to field teams so that the real prospects can develop; only 7 percent will ever wear a Major League uniform.

Usually on the Monday after I arrive, I give my presentations. One after another, at different times and in different locations, I talk to the trainers, then to the minor league coaches and field staff, and then to the minor league players. I tell them who I am, what I do, and how I can be reached. I give them a general summary of the kinds of things I helped them with the previous year, and I mention some of the issues Major League Baseball wants to address—like andro, creatine, and spit tobacco.

I save the hardest group, the major league guys, till last. I stand at the end of a long, curving locker room. There is no microphone and the players do not gather around me; they sit at their lockers. Though I have done this for four years, and at 34 I'm older than nearly all the players (now that Terry Steinbach and Paul Molitor have retired), I still get nervous. After all, these are professional baseball players, and in my eyes they will always be larger than life. In this room, I have given my talks to Golden Glove winners, All Stars, World Series Champions, MVPs, and future Hall of Famers. I never know if the players are really listening. The guys are polite, quiet, but most look down at the floor. I am grateful to the few who make eye contact. I finish and ask if there are any questions. I never get any, at least not then. Many of these guys won't make the cut and will take a lonely walk across the parking lot before spring training is over. A few of them will call me.



PHOTOGRAPH BY JON HALLBERG, M.D.

## *A Day in the Park*

Whenever I can, I try to get to the park early in the morning. Around 7 a.m. the sun starts to rise above the trees across the field, bathing the complex in a soft light. The fields are a perfect velvet green, the clay a rich orange-red, the sky a deep, pure blue. The grounds crews are usually at work by then, mowing the grass in impossibly perfect patterns, tending the grounds much as a team of English gardeners might tend a formal garden. At this time of day, before the crowds arrive, before the action really begins, this place has a Zen-like tranquillity.

Soon, buckets of balls arrive. Pitching machines are calibrated. If I'm lucky, I'll see Al Newman (one of my heroes), a member of two World Series teams and now a coach of the rookie Gulf Coast Twins. We'll talk about his daughters, his place on the Puerto Rican coast, or the Winter Ball team he just coached. Or maybe I'll run into the hitting instructor Tony Oliva (another hero), and we'll talk about his most recent trip back home to Cuba.

*"Soon, buckets of balls arrive. Pitching machines are calibrated. If I'm lucky, I'll see Al Newman (one of my heroes), a member of two World Series teams and now a coach of the rookie Gulf Coast Twins. We'll talk about his daughters, his place on the Puerto Rican coast, or the Winter Ball team he just coached."*

The first crack of the bat tells me that the players are coming out on the field. Then I hear the distant snap of a ball in a glove. Then more. Soon it sounds like a medley of firecrackers. The sounds of summer. And youth. The players, some as young as 17, some away from home for the first time, are an international bunch. As more players emerge from the locker rooms, I can hear the

chatter, the conversation, much of it in Spanish. Though most of the players are from the States, many come from the Dominican Republic, Venezuela, Puerto Rico, Canada, and Australia. The players wear blue, white, red, or gray jerseys that designate their workout groups, the colors representing teams they likely will be assigned to once they break camp.

I sit on a picnic bench in a fenced area next to the batting cages marked "PLAYERS ONLY BEYOND THIS POINT." I bring a novel or a newspaper and I read. And I wait. Eventually, someone will come over. After four years on the job, I know a lot of the guys, so talking to me doesn't really mean anything, there's no shame in it. We might just chew the fat, and I like that. But eventually someone will mention he wants to talk about a problem with his girlfriend. Or whether he drinks too much, or his roommate's odd behavior.

The kinds of issues I deal with in this baseball setting are similar to what EAP providers deal with elsewhere in any other business: anxiety, depression, uncertainty, alcoholism, drug abuse, positive drug screens, marital problems, and the like. But some of the issues are unique to this sport. I frequently talk with players about quitting spit tobacco, or chew, a product practically synonymous with the game. Usually, a girlfriend or wife has put the player up to it, weary of kissing a young man with flakes between his teeth and brown juice on his lip. I once talked to a kid who, after getting a mid-six-figures signing bonus just out of high school, decided he wanted to try professional football. (He came back.) This year, three players decided to call it quits and apply to medical school.

I love this game. I love the look and feel and smell and sound of it. I love the way it unfolds slowly, without a clock or buzzer reminding us, like an anxious patient, that we are late, behind, or simply out of time. I love the way I become a kid again in its presence. Ponce de León came to Florida in search of the Fountain of Youth. I have found it, just off Six Mile Cypress Parkway, guarded by two alligators, in Fort Myers. And every year I will make my pilgrimage to its restorative waters. **MM**

*Jon Hallberg is a physician at the Fairview Nicollet Mall Clinic. His Medicine & the Arts column appears periodically in* Minnesota Medicine. *The column won a 1999 Publishing Excellence Gold Award from the Minnesota Magazine & Publications Association.*

*Getting Patients*
*Back in the Game*

**Treating sports injuries for 20 years**

From injury recovery to prevention, we know sports. Our physical therapists, athletic trainers, chiropractors and massage therapists provide injury-specific care for competitive and amateur athletes at 22 clinics in the Twin Cities metro area.

- Sports and orthopedic physical therapy
- Sports-specific rehabilitation: golf, running, overhead throwing, dance
- Chiropractic care for neuromusculoskeletal conditions
- Athletic training services for high schools, colleges, tournaments
- Ob/Gyn services for female athletes: incontinence, pelvic pain, pregnancy-related conditions

INSTITUTE® FOR ATHLETIC MEDICINE
A service of Fairview and North Memorial

**Patient referrals**
**612-672-7100**

*The Institute for Athletic Medicine accepts a wide range of health plans.*

*First Call Physicians, Inc.*
*A Locum Tenens Service*
*500 Eighth Ave. S.*
*Buffalo, MN 55313*

**Clinics/Hospital** | **Physicians**

*Locums Coverage*
=
*Revenue*

- Patients falling through the gaps?
- Physician burnout or illness?
- Shortage of physicians?

- Earn more with less time.
- No administrative headaches.
- Malpractice premium paid.

***Experience, Service, Honesty***
***Call (metro) 682-3852***
***(toll free) 888-682-3852***

***(You'll be glad you did!)***


Why would you play 18 holes with just a putter?
A company that only offers you insurance is like playing 18 holes with just a putter. Midwest Medical Insurance Company gives you a full complement of "clubs"... services from expert malpractice insurance to complete employee benefits planning, strategic consulting, healthcare information systems consulting, even Internet services designed specifically for you! Master your game with MMIC as your most trusted business partner.
Call 1-800-328-5532 or visit us at www.midmedical.com
20 Years
MMIC
of Excellence
INSURANCE
EMPLOYEE BENEFITS
CONSULTING
Technology & Strategic
INTERNET SERVICES

# CHILD'S PLAY?

## KIDS, SPORTS, AND INJURY

*High-pressure kids' sports have created a demand for physicians with pediatric sports medicine expertise.*

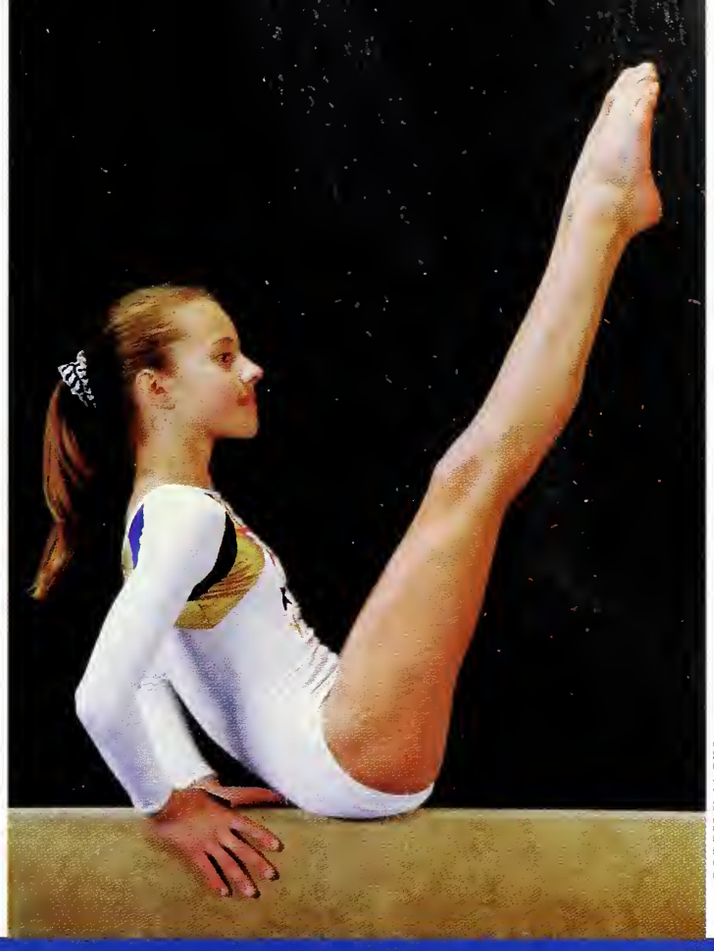


J. WACHTER/PHOTO RESEARCHERS

Children have always loved a good game. When our grandfathers were boys they played baseball in dusty lots next door or down the street. They played hard, stopped when they hurt, and went home when they grew tired. Parents were not there and overuse injuries were virtually unheard of. After all, this was child's play.

But it's a whole new game these days. A safe, vacant lot is a thing of the past. So-called children's games are in the hands of highly organized leagues, requiring parents to drive some 35 million boys and girls to multiple practices and games every week. Youth athletic seasons are longer, sometimes year round. There are more practices, and kids are specializing in a single sport at a younger age.

By Susan Gaines



CORBIS IMAGES

Youth athletics has become high stakes, arguably producing better athletes. But kids have paid a price, physically and psychologically. Each year some 1.5 million children under age 15 are treated in emergency rooms for sports-related injuries, according to the U.S. Consumer Product Safety Commission, and that does not include all the other injuries that bring kids to sports clinics and doctors' offices.

While a growing number of children are at risk for sports-related injuries, medical training to meet this demand has not necessarily kept pace. Though pediatricians are increasingly becoming board-certified in sports medicine, by and large "they ad lib," says Phillip Kibort, M.D., vice president for systems advancement at Children's Hospitals and Clinics. "There really hasn't been any kind of [sports medicine] training for pediatricians."

Indeed, pediatric sports injuries have belonged chiefly to the realms of family practice, emergency medicine, and orthopedics. "It's not that an orthopedist can't deal with injuries of the muscle," says Kibort, "but their focus is more on injuries of the bone. A high percentage of injuries aren't bone. They're muscle."

> *"In reality, 60 percent or more of what we see in sports medicine is not orthopedics, and often not acute care. Issues of diet, psychological issues, chronic problems are actually a large part of what we do. This is really ignored in kids."*
>
> –Gary Nichols, M.D.

The pediatric medical community can no longer ignore the need for sports medicine training, says Kibort, a pediatric gastroenterologist. In response, Children's opened a pediatric sports medicine clinic in November 1999. The part-time clinic, in St. Paul, offers assessment, evaluation, and rehabilitation for acute and chronic musculoskeletal problems. Equally important, the clinic offers pediatric residents hands-on experience in sports medicine. "We're hoping to train the next generation of pediatricians to be comfortable doing appropriate treatment in their offices," says Kibort.

Understanding musculoskeletal development in children is, of course, key in the treatment of pediatric sports injuries. But appropriate treatment also demands understanding the multiple forces at work in the world of youth athletics.

"In reality, 60 percent or more of what we see in sports medicine is not orthopedics, and often not acute care," says Gary Nichols, M.D., a pediatrician with sports medicine certification at Partners in Pediatrics in Plymouth. "Issues of diet, psychological issues, chronic problems are actually a large part of what we do. This is really ignored in kids."

Physicians who apply a psychosocial perspective may have an advantage when dealing with pediatric sports injuries, particularly since at least half of all sports injuries in children are preventable, according to the American College of Sports Medicine. By understanding the roles of training, psychological development, parental involvement, and cultural expectations, physicians bring to the exam room a capacity not only to heal the injury, but also to help the young athlete prevent future injuries.

## Rest and Training

Nearly half of all sports-related injuries in children are due to overuse. "Fifty years ago we saw very few overuse injuries in kids because most of the play was free play," says Rob Johnson, M.D., director of primary care sports medicine at Hennepin County Medical Center's department of family practice. "Kids were controlling it. Now we have sports organizations, coaches, and parents [whom] the young athlete will try to please. They often extend themselves beyond comfort, which they wouldn't do if they were playing on their own."

Training programs for young athletes do not always

consider the physical demands of a growing body. "There are marked differences in coordination, strength, and stamina between children and adults," says Matt Harrison, M.D., a physical medicine and rehabilitation physician at St. Luke's Hospital in Duluth. "In young athletes, bone-tendon-muscle units, growth areas within bones,

# Making Hockey Safer

In the land of 10,000 lakes and eight months of winter, hockey is a way of life for many young athletes. But too often, the sport causes injury. Lacerations, contusions, sprains, strains, fractures, concussions, and spine injuries can land youth hockey players in hospitals and clinics. While hockey is a fast, intense, and exciting sport, it need not be so dangerous. Reducing violent behavior on the ice would make hockey safer, says the Minnesota Medical Association (MMA), which represents 9,500 of the state's physicians and has warned coaches, parents, fans, and players of the injuries associated with body checking.

A study[1] by Minnesota researchers found that body checking accounted for 59 percent of hockey injuries (20 percent from legal checking and 39 percent from illegal checking) and that rules violations were responsible for another 27 percent.

Although the potential for injuries is inherently great in a sport played with sticks on a slippery surface at high speeds, injury can be minimized with commonsense policies that reduce the number of collisions, promote the use of protective equipment, and ban violence.

Collisions account for most hockey injuries and the severest ones. A direct blow to the top of the head of a player in the chin-down position can cause a paralyzing cervical spine injury. In a study of 117 hockey players with spine or spinal cord injuries, the most common cause was a punch or check from behind that sent the player head first into the boards.[2]



1999 HARRY SIEPLINGA HMS IMAGES/THE IMAGE BANK

The MMA believes simple efforts can make hockey safer for children:

- Enforce the rules against checking from behind, charging, and boarding.
- Emphasize skill, good sportsmanship, fun, and healthy competition—not winning at all costs.
- Encourage players to resolve conflicts off the ice—not to retaliate during a game.
- Teach players to protect themselves by making initial board contact with their shoulder blade or buttocks rather than with their head.
- Teach players how to avoid hitting the boards with the top of their head.
- Support the referees' calls.

Playing with less violence can be a winning strategy. In a study of the Stanley Cup Championship Final Series from 1980 to 1997, Texas physician John Walker, M.D., and Illinois State University professor Steven T. McCaw, Ph.D., found that teams playing less violently were more likely to win and averaged more than seven more shots per goal per game than teams that played with more violence.

Hockey will continue to be a way of life for many Minnesotans. Let's make it safer.

## REFERENCES

1. Brust JD, Leonard BJ, Pheley A, et al. Children's ice hockey injuries. Am J Dis Child 1992; 146(6):741-7.
2. Tator CH, Edmonds VE, Lapczak L, et al. Spinal injuries in ice hockey players, 1966-1987. Can J Surg 1991; 34(1):63-9.

and ligaments experience uneven growth patterns, leaving them susceptible to injury. That's why it's important for coaches, parents, and players to provide protection for the young athlete through proper conditioning, prompt treatment of injuries, and rehabilitation programs" (see "Training" below).

Training programs designed with the musculoskeletal development of growing bodies in mind go a long way toward preventing both acute and overuse injuries in young athletes. The American College of Sports Medicine calls for a no more than 10 percent increase in children's total training each week. This "10 percent rule" means an athlete who runs 10 kilometers and swims 3,000 meters one week should only be allowed to run 11 kilometers and swim 3,300 meters the following week.

Specializing in a single sport or playing year round also puts young athletes at greater risk of injury, says HCMC's Johnson. But by changing sports throughout the year, young athletes not only gain a wider range of skills but also give their bodies the breaks they need. "Each sport has different demands and different requirements of both the cardiovascular system and the musculoskeletal system," he says, "providing [enforced] breaks in training."



© 1999 LORI ADAMSKI PEEK/TONY STONE IMAGES

## TRAINING

Coaches and parents can protect young athletes from injury by promoting these tenets of training:

- Individualized training. Not all athletes are created equal, yet many training programs do not have the resources or expertise to take physical and developmental differences into account.
- Warm up and warm down.
- Flexibility exercises are critical for young athletes, particularly those in rapid growth phases.
- Weight training. Most physicians agree that with knowledgeable instruction and proper supervision, weight training can help reduce the incidence of some overuse and acute injuries. However, some medical experts question the amount of strength gain possible before adolescence.

## Pressure's On

Rest is important psychologically as well. Single-sport athletes—particularly those who've been playing the sport for years—may be more susceptible to burnout by high school or even earlier. "They've been playing that sport already for so many years, it's no longer fun," says Lori Lebert, certified athletic trainer with the Institute for Athletic Medicine at Fairview North Memorial, who worked with high school athletes for 11 years.

When a single sport is emphasized, the child athlete may experience greater psychological pressure. Carlos Guanche, M.D., an orthopedic surgeon with the Minneapolis Sports Medicine Center, says he looks for signs of parental pressure when he's assessing a pediatric sports injury. Observing who does the talking—child or parent—tells him a lot about the psychological dynamics. "I'll get into the examining room and it will be the mom and the kid," he says. "I'll ask little Johnny, 'What's the problem?' The parent blurts out, 'He's had this pain.' I ask the kid, 'What kind of symptoms?' The parent will say, 'Well, he's had pain here.' I try to redirect things at the kid."

In some cases, injury can provide young athletes the physical and psychological break they badly need. "You can see that the kid's just not as upset about the injury as the parent and what it means in terms of participation," says Guanche. "Sometimes, we'll just give him the out."

Not everyone shares Guanche's attitude, however. A mid-1990s study conducted by the Minnesota Amateur Sports Commission reported that 21.5 percent of kids

*Physicians vary widely in how they gauge recovery and when they return kids to the game after a head injury, an inconsistency athletic trainer Lori Lebert finds frustrating. She recommends following guidelines from the Brain Injury Association of Minnesota. (See the head injury tables below and at right.)*

Table 1

*Management of Concussion in Sports*

**Grades of Concussion**

| Grade 1 | Grade 2 | Grade 3 |
|---|---|---|
| 1. Transient confusion (inattention, inability to maintain a coherent stream of thought and carry out goal-directed movements)<br>2. No loss of consciousness<br>3. Concussion symptoms or mental status abnormalities on examination resolve in less than 15 minutes | 1. Transient confusion<br>2. No loss of consciousness<br>3. Concussion symptoms or mental status abnormalities (including amnesia) on examination last more than 15 minutes | 1. Any loss of consciousness<br>a) brief (seconds)<br>b) prolonged (minutes) |

**Management Recommendations**

| Grade 1 | Grade 2 | Grade 3 |
|---|---|---|
| 1. Remove from contest<br>2. Examine immediately and at 5-minute intervals for the development of mental status abnormalities or post-concussive symptoms at rest and with exertion<br>3. May return to contest if mental status abnormalities or post-concussive symptoms clear within 15 minutes | 1. Remove from contest and disallow return that day<br>2. Examine on-site frequently for signs of evolving intracranial pathology<br>3. A trained person should reexamine the athlete the following day<br>4. A physician should perform a neurologic examination to clear the athlete for return to play after 1 full asymptomic week at rest and with exertion | 1. Transport the athlete from the field to the nearest emergency department by ambulance if still unconscious or if worrisome signs are detected (with cervical spine immobilization, if indicated)<br>2. A thorough neurologic evaluation should be performed emergently, including appropriate neuroimaging procedures when indicated<br>3. Hospital admission is indicated if any signs of pathology are detected, or if the mental status of the athlete remains abnormal |

**When to Return to Play**

| Grade of concussion | Return to play only after being asymptomatic with normal neurologic assessment at rest and with exercise: |
|---|---|
| Grade 1 concussion | 15 minutes or less |
| Multiple grade 1 concussions | 1 week |
| Grade 2 concussion | 1 week |
| Multiple grade 2 concussions | 2 weeks |
| Grade 3 ... brief loss of consciousness (seconds) | 1 week |
| Grade 3 ... prolonged loss of consciousness (minutes) | 2 weeks |
| Multiple grade 3 concussions | 1 month or longer, based on decision of evaluating physician |

surveyed said they'd been pressured to play with an injury. Indeed, parents and coaches can lose sight of the forest for the trees—or the game for winning—and what it is kids love most about sports. Until age 14 or 15, says Johnson, kids play to have fun. "Parents want the win-loss record to be good. The coach wants the record to be good. The kids like to win, but it's not that big a deal if they don't."

Some experts argue that the psychological costs exacted by our sports-crazed culture are highest of all. Understanding child development can help coaches and parents set reasonable physical and psychological expectations for children's participation in sports. "It's critical that we understand the significant difference between play and competition," writes Fred Engh, president of the National Alliance for Youth Sports, in "Why Johnny Hates Sports" (Avery Publishing Group, 1999). "Without knowing the difference, we risk pushing our children too hard, destroying their self-confidence, and damaging their self-esteem."

## Avoiding Injury: Preventive Care

Beyond exploring psychological or training issues, the goal for most physicians dealing with pediatric sports injuries is getting kids healed and back in the game. But for Partners in Pediatrics' Nichols, prevention is a priority. He uses his general pediatric practice to investigate potential risk for sports-related problems.

"It's obvious when someone comes in with a sprained ankle, you look at their ankle," says Nichols. "But as important is routinely asking these questions and looking for potential problems." A patient's participation in gymnastics, for example, might alert the physician to the potential for eating disorders. During an exam of a 15-year-old gymnast, Nichols might ask, "How's your diet? How are your menstrual cycles?"

Since contact sports like football, hockey, and soccer put players at greater risk for head injury, Nichols talks to young athletes about the importance of listening to the coach and using safer tackling techniques. And he talks about the importance of other preventive safety measures, including bike helmets. No matter how you got the head injury, he tells them, if you haven't recovered, you can't play.

While the traditional goal for sports medicine physicians is to return kids to the game, others are demanding that the game be returned to kids.

Participating in sports offers young people a powerful way to develop positive character traits and skills, but when competition gets out of balance with playing, "it's not surprising that we're seeing an increase in injuries," says David Walsh, Ph.D., a Minneapolis psychologist and author of "Selling Out America's

Table 2

### *Features of Concussion Frequently Observed*

1. Vacant stare (befuddled facial expression)
2. Delayed verbal and motor responses (slow to answer questions or follow instructions)
3. Confusion and inability to focus attention (easily distracted and unable to follow through with normal activities)
4. Disorientation (walking in the wrong direction; unaware of time, date, and place)
5. Slurred or incoherent speech (making disjointed or incomprehensible statements)
6. Gross observable incoordination (stumbling, inability to walk tandem/straight line)
7. Emotions out of proportion to circumstances (distraught, crying for no apparent reason)
8. Memory deficits (exhibited by the athlete's repeatedly asking the same question that has already been answered, or inability to memorize and recall 3 of 3 words or 3 of 3 objects in 5 minutes)
9. Any period of loss of consciousness (paralytic coma, unresponsiveness to arousal)

### *Sideline Evaluation*

**Mental Status Testing**

| | |
|---|---|
| Orientation: | Time, place, person, and situation (circumstances of injury) |
| Concentration: | Digits backward (i.e., 3-1-7, 4-6-8-2, 5-3-0-7-4) |
| | Months of the year in reverse order |
| Memory: | Names of teams in prior contest |
| | Recall of 3 words and 3 objects at 0 and 5 minutes |
| | Recent newsworthy events |
| | Details of the contest (plays, moves, strategies, etc.) |

| **Exertional Provocative Tests** | **Neurological Tests** |
|---|---|
| 40-yard sprint | Strength |
| 5 push-ups | Coordination and agility |
| 5 sit-ups | Sensation |
| 5 knee-bends | |

Any appearance of associated symptoms is abnormal, i.e., headaches, dizziness, nausea, unsteadiness, photophobia, blurred or double vision, emotional lability, or mental status changes.

For more information about the Management of Concussion in Sports Public Education Campaign, please call the American Academy of Neurology at 612/623-8115 or the Brain Injury Association at 202/296-6443.

Children" (Fairview Press, 1995). Of course, sports injuries are not necessarily a sign of imbalance, but overuse injuries in particular have some physicians and other experts asking: Whose game is it anyway?

"It should cause all of us to remember," says Walsh, "that the greatest benefit of youth athletics is the

# Sports for Kids with Disabilities

*A Gillette Children's program addresses the special sports medicine needs of children with disabilities.*

It was a routine six-month exam for 10-year-old Rick, who has cerebral palsy. Only this time, Linda Krach, M.D., a rehabilitation medicine specialist at Gillette Children's Specialty Healthcare in St. Paul, was alarmed to find that Rick had gained a significant amount of weight since his last appointment and was markedly overweight for his age. His mother confirmed that Rick spent most of his time playing video games and that he engaged in almost no physical activity besides simply getting around day-to-day. She also noted that her son's endurance while walking had lessened and that he was choosing to use his wheelchair more often.

Krach was concerned that Rick's weight gain would not only be detrimental to his cardiorespiratory system and overall health, but also impair his ability to remain independent long term. She recommended that Rick become involved in regular physical activity and referred him to one of Gillette's therapeutic recreation specialists, Tammy Larson.

A fitness test conducted by Larson confirmed that Rick's cardiorespiratory health and endurance were poor. She discussed activity options with Rick and his mother and developed a plan for Rick to walk with his brother to a neighborhood park three to four times a week. The incentive for Rick was the opportunity to play on the park playground. Rick will return to Gillette for fitness testing in six to eight weeks to see if his health and endurance have improved.

Staying fit and active is important to overall health and well-being whether or not you have a disability, says Larson. That's the thrust of the sports medicine program at Gillette Children's Specialty Healthcare, which specializes in caring for children and teens with disabilities.

Launched in 1998, Gillette's sports medicine program promotes participation in sports and recreational activities by young people with cerebral palsy, spina bifida, brain and spinal cord injuries, and other disabling conditions. A wide spectrum of sports medicine services, from fitness testing to rehabilitation of acute sports injuries, is available at both Gillette's West Clinic in Minnetonka and its main campus in St. Paul.

"Not only is participation in sports and recreation a great way for young people with disabilities to stay physically healthy, but it can improve their emotional and social adjustment," says Susan Quigley, M.D., a pediatric rehabilitation medicine specialist at Gillette.

Key components of Gillette's program include one-on-one evaluations of kids to determine their activity interests; fitness testing and ongoing evaluations; sports and leisure education; injury prevention education; and injury rehabilitation to help young athletes return to activities quickly and safely. Another important focus is linking young people to sports and recreation programs that match their interests and are available in their community.

physical exercise, the experience of being on a team, the involvement, inclusion, the opportunity to develop all sorts of talents." MM

*Susan Gaines is a freelance writer who resides in Minneapolis.*

## Physical Fitness Is Crucial

Gillette promotes active lifestyles for children with disabilities, who often have less access to sports and recreation programs in their communities and schools.

"Kids [or their parents] often tell us that it takes so much energy just for the patient to get around," explains Larson. "But just getting around is not enough to ensure a good level of cardiovascular fitness."

Quigley agrees, noting that insufficient exercise can lead to long-term physical complications for young people with disabilities and a pattern of decreasing function that can be difficult to stop.

"If weight gain accompanies the change in function, the young person may have reached the point where they no longer have the strength to move their own body weight," Quigley says. "This setback often occurs during adolescence. During their high school years, children often engage in more cognitive activities and less physical play. They may also become accustomed to a more sedentary lifestyle, which can lead to obesity."

Any activity with a physical fitness component, done regularly, will benefit a young person with a disability, Quigley adds. "An improved cardiorespiratory fitness level not only benefits their health, but it makes it easier for them to handle daily activities. Young people who are physically fit are stronger and therefore more able to move into the bathtub, transfer into a wheelchair, or simply get dressed with less assistance from others."

This independence, Quigley explains, combined with the exhilaration of setting and accomplishing goals, also contributes to enhanced self-esteem and positive social adjustment.



GILLETTE CHILDREN'S SPECIALTY HEALTHCARE

"In my experience," says Larson, "the kids who participate in recreational activities seem to be better integrated into their schools and communities. And they seem to adjust better to life as adults."

Involvement in sports and recreation covers a wide range of activities, from recreational pastimes such as swimming and golfing, to competition, Larson says. "There is really something for almost everyone, even young people with severe disabilities. Not everybody has to be an elite sports competitor to benefit from recreational activity."

*–Gillette Children's Specialty Healthcare*

# Mastering the Medicine of MOTION



CORBIS IMAGES

*For many primary care physicians, sports medicine is no longer just a sideline.*

By Kristin Smith

Sports medicine training for primary care physicians didn't exist when White Bear Lake family physician William Roberts, M.D., was in medical school at the University of Minnesota in the 1970s. So Roberts, an athlete and fan, fashioned his own "sports medicine" program while completing his master's degree in family practice and community health, combining courses in exercise physiology, biomechanics, and exercise medicine into a minor area of study. He gained practical experience with nonprofessional and noncollegiate athletes and, over the years, gleaned information from continuing education courses, many sponsored by the American College of Sports Medicine.

"It was a seat-of-the-pants endeavor," he says. "Training was an individual effort accomplished with some support from the residency administration."

In contrast, when internist and sports medicine fellow Balu Natarajan, M.D., completes his Primary Care Sports Medicine Fellowship at Hennepin County Medical Center later this summer, he'll already have assessed some 1,500 patients for musculoskeletal problems and researched electrolyte disturbances in distance runners. He'll know how to perform fitness assessments and make exercise prescriptions, evaluate and treat injuries, and staff athletic training rooms. And he'll be equipped to care for wide-ranging conditions more often seen in the bleachers than in the locker room—exercise-induced asthma, dermatitis, mononucleosis, flu, and alcohol abuse, for example—that can affect sports participation.

The HCMC fellowship, Minnesota's only sports medicine primary care training program, is a yearlong interdisciplinary program offering physicians the opportunity to work with family medicine staff and orthopedic surgeons with expertise in sports and exercise. Following a curriculum that is 80 percent sports medicine and 20 percent family medicine, fellows see patients in diverse settings: medical clinics, high school and college training rooms, and weekend tournaments. Fellows spend two and one-half days a week in a primary care clinic seeing patients, 60 percent of whom suffer from muscle- or joint-related conditions. Another two and one-half days are spent in orthopedic clinics with sports medicine surgeons who see patients for such concerns as knee and shoulder trauma and overuse injuries. To further their understanding of the musculoskeletal system, fellows spend up to 12 days of the program in the operating room with the surgeons.

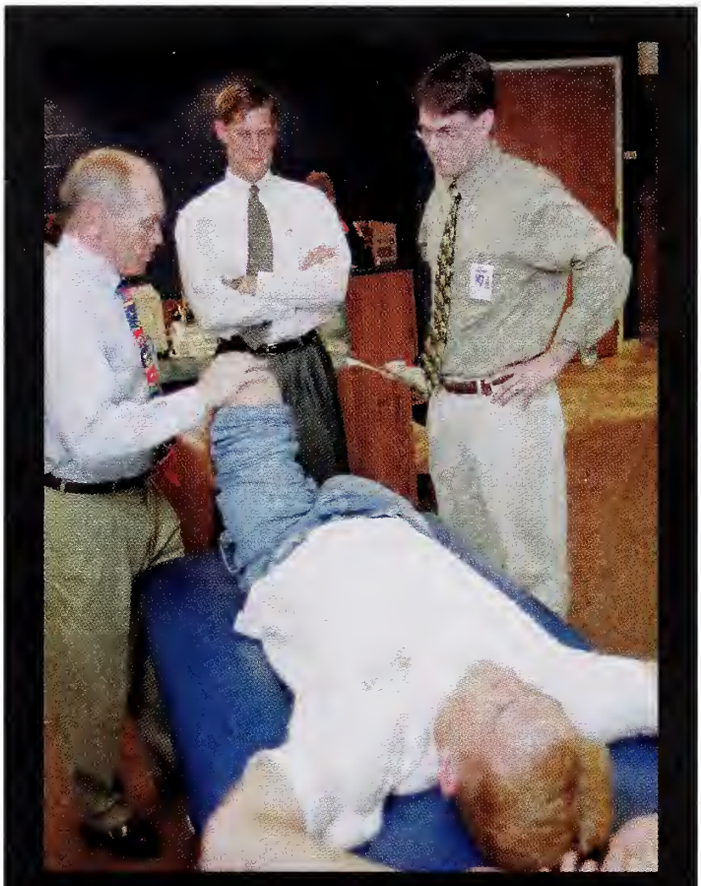
They spend their remaining time in college and high school training rooms working with athletic trainers and on the sidelines at sports events that include football, cross-country skiing, basketball, and soccer. Fellows can expect to work with a team of health care professionals in the sports medicine arena, consisting of physical therapists, sports organizers, emergency medical technicians, and nutritionists.

The HCMC fellowship was accredited in 1996 by the Accreditation Council for Graduate Medical Education and is one of 53 such fellowships available nationwide to family practice, pediatric, internal medicine, and emergency medicine physicians. Thirty physicians have completed the local fellowship, and a third still practice in Minnesota. Half of the program's graduates practice in large multispecialty clinics where they see a mix of primary care and sports medicine patients. Several fellows now serve as team physicians for NCAA Division I and Division II schools; two others have gone on to direct their own fellowship programs—one in Portland, Maine, and the other in Salt Lake City.

## *A Primary Care Specialty*

Although primary care physicians have always treated patients with sports injuries, many considered sports medicine the turf of orthopedic and rehabilitation specialists. Not anymore. A growing recognition of the link between exercise and good health has drawn public and professional attention to sports medicine. The field is evolving from what it was 25 years ago, says Robert Johnson, M.D., who directs HCMC's fellowship and founded the American Medical Society for Sports Medicine. "No longer does the specialty serve elite athletes alone; rather, it serves anyone who benefits from physical activity that comes from work, recreation, therapy, treatment, and disease prevention."

Johnson and the HCMC fellows see patients at HCMC's Family Medical Center, a primary care clinic in south Minneapolis where fellows apply their newfound clinical skills to a diverse patient mix that includes older adults, teens, working adults, and athletes. Roughly one in four primary care patients presents with a musculoskeletal concern that might be related to sports, work, or age, says Johnson. Working with 15 faculty physicians and 36 residents, fellows learn how to complete a musculoskeletal assessment, and to determine when patients are ready to return to activities of daily living, work, or sports.



PHOTOGRAPH BY DAVID ELLIS

*Dr. Robert Johnson examines Bethel College student and pole vaulter Sam Anderson as HCMC fellow Robert Jones, M.D. (middle), and third-year medical student Bob Boyle, (right) look on.*

Family physician and assistant director Charles Anderson, M.D., says physicians who complete the fellowship strengthen their clinical skills with the sports medicine training. Anderson, who joined HCMC in 1990, was in the second class of residents to complete the sports medicine program, in 1989.

James Rogers, M.D., blends sports and general medicine in his practice at the Raiter Clinic in Cloquet, Minnesota. A family physician, Rogers sees patients who include a 55-year-old diabetic who skis in the American Birkebeiner, a millworker with low back pain, and a 10-year-old female hockey player with tendinitis. Rogers, who spent a month of his residency training with the Minnesota Vikings' medical staff and served as a volunteer physician at the Olympic Training Center in Lake Placid, says 10 years of practice in a town of 11,000 has taught him that the needs of athletic patients vary. "Competitive athletes are highly motivated to return to play and participate in therapies and rehabilitation," he says. "Injured 'industrial athletes' or the grandmother with plantar fasciitis often lacks this motivation and is less able to comply with more aggressive medical care."

Despite the apparent need, few physicians are trained in even the basics of sports medicine. According to a 1998 *Physician and Sportsmedicine* article,[1] a quarter of primary care clinic visits are for musculoskeletal concerns, yet less than 3 percent of undergraduate medical school curriculum is spent on musculoskeletal medicine. In a recent study, Freedman and Bernstein[2] found that 82 percent of new medical and surgical residents at one major medical school failed to pass a basic knowledge test in musculoskeletal medicine.

"Few residents come through our office with the background to assess and manage presenting athletes," says Roberts about his White Bear Lake practice.

HCMC fellow Natarajan said he felt ill-prepared to treat a soccer player with knee pain during his first week as a fellow at HCMC. "A kid came in with knee pain. The trainers looked at me and said, 'Do something.' I looked at the other fellow, who had more experience than I did, and said, 'Do something,'" he recalls.

Although interest in sports medicine is growing among primary care physicians, training in the subspecialty must be self-initiated and is only for the highly motivated, says Johnson. Evening and weekend field training is uncompensated, and continuing education in current practice requires commitment. Physicians who apply to fellowship programs must expect to secure a postgraduate sports medicine–oriented rotation and seek field training, and they are encouraged to complete a sports medicine research project prior to application. The application process is competitive. "There aren't enough fellowships for the number of physician applicants," says Johnson, who estimates that one in four physicians won't be accepted to a program. Natarajan scrambled to secure his HCMC fellowship, field training, and physician mentors. He applied for 30 fellowships and interviewed for half.

"Balu's case was more difficult because his specialty is internal medicine, not family practice," explains Johnson. "Many programs won't accept applications from anyone but family medicine because it is felt the training doesn't prepare them to

treat the wide-ranging conditions that affect sports participants."

## *Certification*

Certification in primary care sports medicine is making training more standardized, says Johnson. The American boards of family practice, pediatrics, emergency medicine, and internal medicine developed the Primary Care Sports Medicine Certificate of Advanced Qualification (CAQ) in 1993. The certificate is a step forward in creating a standardized, integrated primary care curriculum as well as a nonsurgical complement to orthopedic surgery, says Johnson. Roberts and Johnson, who both helped develop the CAQ, agree it lends scientific rigor to practical training.

Rogers says earning the certificate helped him identify gaps in his medical knowledge and also clarified his vision for his small-town practice. "I'm a family doctor with a sports medicine interest. I don't want a full-time sports medicine practice, nor do I see the volume necessary to maintain the high skill level," he explains.

To become board-certified in sports medicine, primary care physicians must spend at least one year in an ACGME-accredited sports medicine program associated with an ACGME-accredited residency in pediatrics, family practice, emergency medicine, or internal medicine.

Implementation of the CAQ and accreditation of sports medicine fellowships is strengthening medical training, asserts Roberts. "The core curriculum is in place to better educate physicians through a bigger pool of knowledgeable instructors." Still, the curriculum has been slow to develop, and instructors not affiliated with fellowship programs may not have adequate field experience, he says. And the American Academy of Family Practice does not yet have a formal plan for advancing training in sports medicine.

The American Orthopaedic Society for Sports Medicine does not offer sports medicine certification, although a 1999 survey of member and nonmember orthopedic physicians found that 70 percent of its members and 60 percent of nonmembers would seek a sports medicine certification if it was available. The survey found members evenly split on the benefits of a certification: Some felt it would encourage a higher standard of training while others felt it was an unnecessary burden.

Orthopedists, however, are integral to the practice of sports medicine. "There is no knee surgery on the sideline, but a good surgeon is essential to the team. [Orthopedic surgeons] are uniquely trained to increase our understanding of musculoskeletal medicine," says Roberts, who also works with a team of nutritionists, psychologists, neurologists, fitness trainers, exercise physiologists, and rehabilitation therapists.

The Minneapolis Sports Medicine Center exemplifies the multidisciplinary approach to the specialty. The medical clinic links orthopedic and family physicians with physical therapists and athletic trainers from the Institute for Athletic Medicine, a rehabilitation provider for Fairview Health Services and North



*HCMC fellow Robert Jones, M.D., examines Sam Anderson for shin splints. Robert Johnson, M.D., standing, says health problems in college athletes range from eating disorders to injuries of the knees, shoulders, and ankles.*

PHOTOGRAPH BY DAVID ELLIS

Memorial Health Care, to offer comprehensive sports medicine to Minnesota's professional and college sports teams. Included in its mission are research and education, which occur at monthly sports medicine forums and at annual conferences. HCMC's sports medicine fellows work with many of the center's surgeons and family physicians and are regular presenters at the forums.

The team members share a sense of purpose, says Executive Director Robert Finke. "Human mechanics, environment, equipment, safety concerns—no one specialty can be expert."

Clearly, sports medicine training has come a long way in the last two decades. Physicians in diverse practice settings are acquiring training in musculoskeletal medicine and learning to handle other medical needs of amateur and professional athletes. Fellowship programs are turning out nearly 77 new graduates annually, says Roberts, and many are incorporating their training into the primary care curricula of the 400-plus residency programs nationwide. Roberts is confident this infusion of primary care physicians who understand the basics of sports medicine will improve the care of athletes, both on the field and in the stands. MM

*Kristin Smith is a freelance writer and fitness instructor living in Maplewood, Minnesota.*

REFERENCES

1. McKeag DB. Medicine in motion: anniversary commentary. The Physician and Sportsmedicine 1998;26(4):29-30.
2. Freedman KB, Bernstein J: The adequacy of medical school education in musculoskeletal medicine. J Bone Joint Surg (Am) 1998;80(10):1421-27.

### *Sports Medicine Resources*

American College of Sports Medicine (ACSM) 317/637-9200

Northland Chapter, American College of Sports Medicine, 218/726-8531

American Medical Society for Sports Medicine (AMSSM), 913/327-1415

American Orthopaedic Society for Sports Medicine (AOSSM), 847/292-4900

The Physician and Sportsmedicine (Journal) www.physsportsmed.com

American Academy of Family Physicians 800/274-2237

American Academy of Pediatrics, 708/228-5005

American Board of Internal Medicine 215/446-3500

HealthPartners®
*Institute for Medical Education*

Genetics and the Future

A Forum for Physicians in Training and in Practice

Tuesday, June 13, 2000

Touchstone Energy® Place at RiverCentre, St.Paul, Minnesota

Featuring The 2000 IME Distinguished Visiting Scholar – Susan P. Pauker, MD

Chief, Medical Genetics, Harvard Pilgrim Healthcare Foundation

This distinctive seminar is designed to provide physicians with the framework necessary to unite the science and ethics of genetics.

Keynote address by Dr. Pauker begins at 12:30pm, followed by presentations from R. Scott McIvor, PhD, and Jeffrey Kahn, PhD, University of Minnesota, Minneapolis

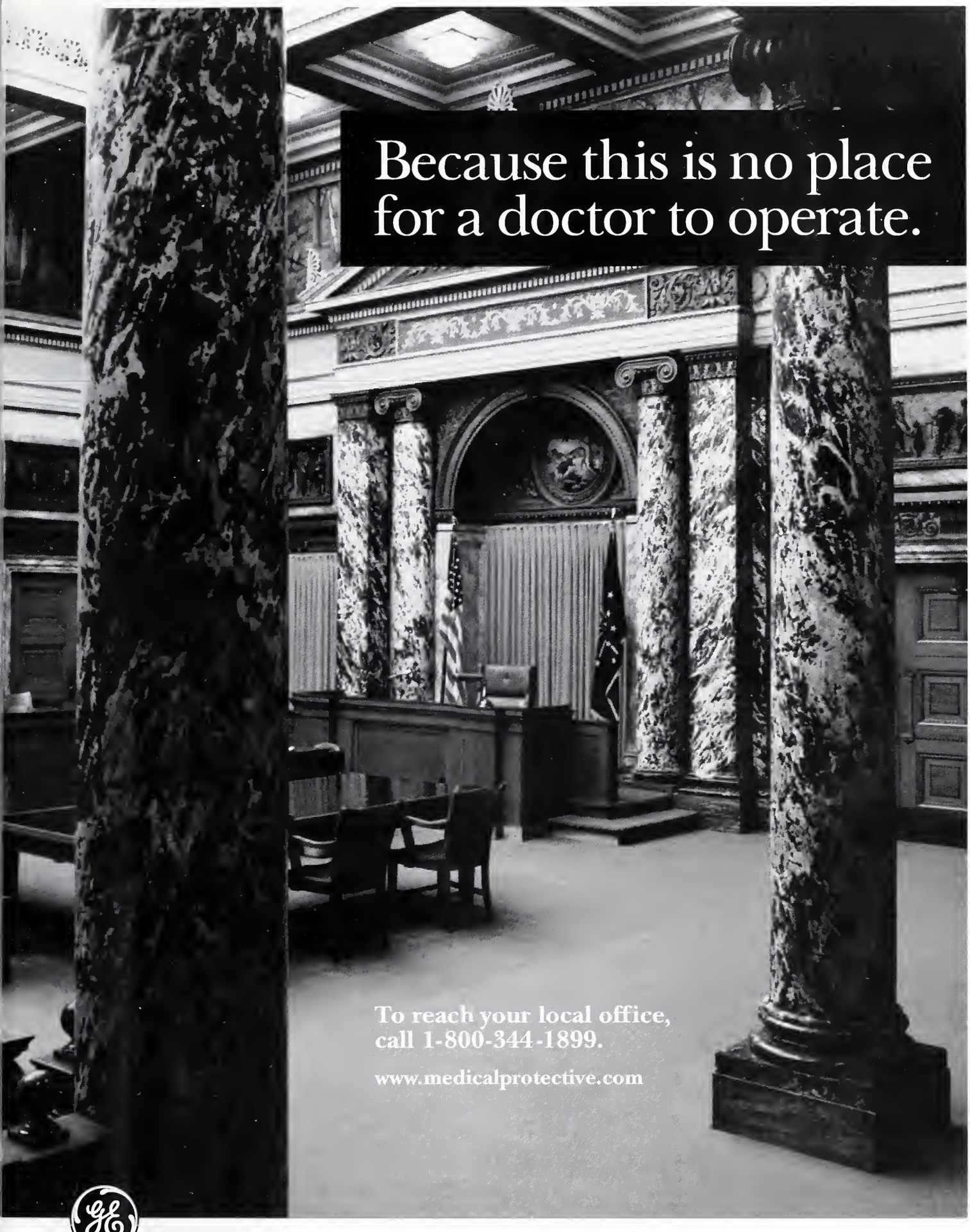
Wednesday, June 14, 2000

Regions Hospital, St. Paul, Minnesota, Faculty Development begins at 11:00am with Dr. Susan P. Pauker

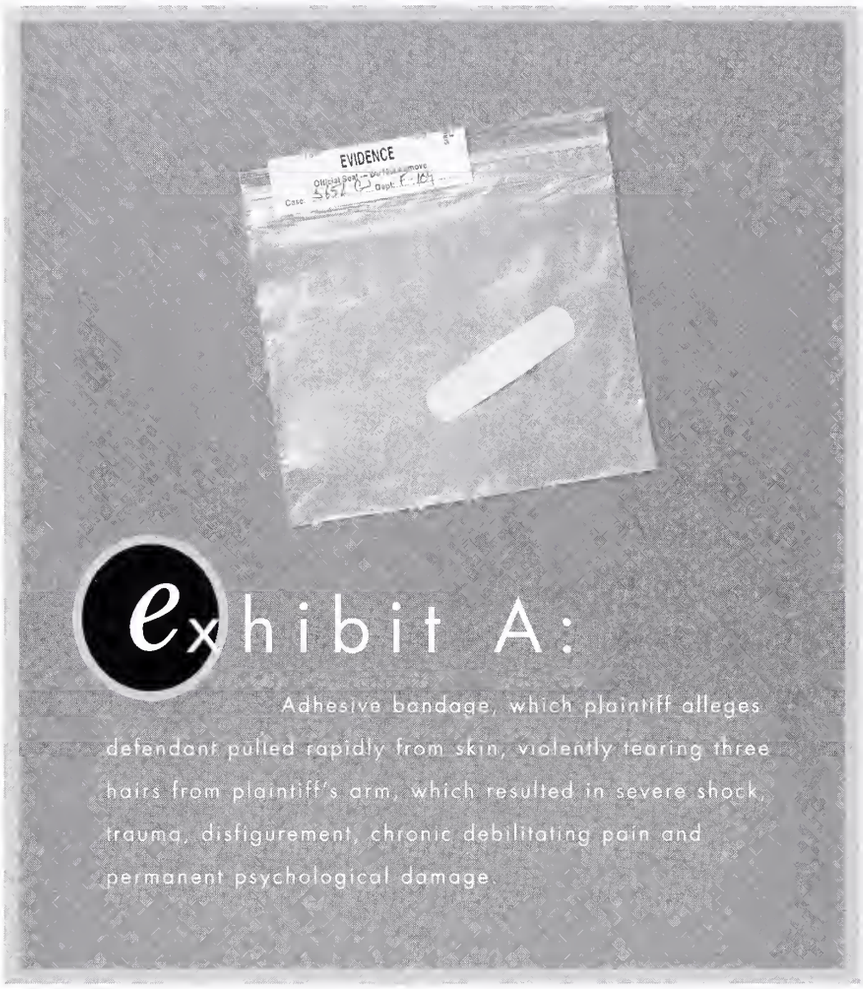
Register by contacting Nicole Brannan with your name and address by June 1, 2000

email: Nicole.D.Brannan@HealthPartners.com or Telephone 651.221.3223

THIS PROGRAM IS MADE POSSIBLE THROUGH THE GENEROUS GIFT OF RAMSEY CLINIC ASSOCIATES FOUNDATION




***The Medical Protective Company®***




To protect your reputation, we take every claim seriously.

Even the most absurd claims can be damaging if they're not handled properly. Which is why the full weight of our more than 60 years of experience in medical liability insurance is brought to bear on each and every claim, no matter how frivolous that claim may appear. In fact, when appropriate, we have appealed cases all the way to the United States Supreme Court, at no additional cost to policyholders. Because you can't put a bandage on a damaged reputation.

The St Paul
*Medical Services*

©2000 St. Paul Fire and Marine Insurance Company
Coverages underwritten by St. Paul Fire and Marine Insurance Company or another member of The St. Paul Companies. www.stpaul.com

HealthPartners®
*Institute for Medical Education*

CME

## Continuing Professional Development 2000 Offerings

Cardiology Today ..... Every Third Tuesday
Strategies in Primary Care Medicine ..... September 28 – 29, 2000
Women's Health: New Information for a New Century ..... November 3, 2000
Pulmonary and Critical Care ..... November 9 – 10, 2000
Orthopedics for Primary Care ..... November 17 – 18, 2000
22nd Annual Cardiovascular Conference ..... December 7 – 8, 2000

### For Further Information Contact:

*Institute for Medical Education*
*Continuing Professional Development*
*640 Jackson Street • St. Paul, MN 55101*
*Phone 651-221-3992 • Fax 651-292-4773*
*Web site: IME.HealthPartners.com*

## ANNOUNCEMENTS



### New Web Game Promotes Buckling Up

The Minnesota Safety Council, in partnership with the MMA and other groups, has launched the "Snappy Safari" child passenger safety section on its Web site.

Snappy Safari includes a game that reinforces passenger safety behavior through a virtual ride in the jungle. An interactive calculator helps parents determine the best type of restraint for their child.

Look for Snappy Safari on the Minnesota Safety Council Web site at http://www.mnsc.org/snappy/.

### MMA Physician Communicator Award

The MMA is seeking nominations for its Physician Communicator Award, to be presented at the 2000 MMA Annual Meeting September 13–15 in Duluth. This award goes to a member who has shown exemplary skills in communicating with the public. To submit a nomination, call Lorrie Holmgren at 612/378-1875 or 800/DIAL MMA (342-5662).

# Capitol Gains: 2000 Session Yields Key Health Care Victories

When the Minnesota Legislature adjourned on May 17, the Minnesota Medical Association and the physicians it represents had many reasons to count the session as a success. MMA staff, leaders, and members were instrumental in winning significant victories with the passage of some bills and the defeat or modification of others.

### Prompt Payment of Claims

This legislation, which becomes effective January 1, 2001, requires health plans and third-party administrators to pay clean claims submitted on or after that date within 30 days or be subject to billing for 1.5 percent monthly interest. It also creates a standard definition for a clean claim based on the Medicare usage: "... a claim that has no defect or impropriety, including any lack of any required substantiating documentation, or particular circumstance requiring special treatment that prevents timely payment from being made on a claim under this section."

The MMA initiated this bill in response to a 1998 House of Delegates resolution calling for the MMA to research and, if appropriate, take legislative action regarding delayed payment of claims by health plans. An MMA survey of clinics found the average payment delay for clean claims is more than 35 days.

### Limited Contract Stacking Prohibition

This legislation prohibits "contract stacking" between categories of health care coverage, beginning August 1.

The MMA supported this legislation, which prohibits health plan companies from requiring providers to participate in categories of health care coverage in which they may not be interested, such as no-fault auto or workers' compensation insurance. The law becomes effective August 1, 2000, and applies to contracts entered into on or after this date.

Passage of this law is a preliminary step toward accomplishing the greater goal of prohibiting contract stacking within each category of coverage, also known as an "all products clause."

### Expert Witness Certification

The MMA and several other groups aggressively opposed a bill initiated by the Minnesota Trial Lawyers Association that would have significantly shifted the balance in favor of plaintiffs suing physicians in medical malpractice cases.

The prevailing statute calls for mandatory dismissal of a case if the plaintiff does not serve an expert witness affidavit that is in compliance with certain requirements. The bill would have given a plaintiff suing a physician an additional 60 days to cure an alleged defect in an expert witness affidavit rather than calling for a dismissal.

The proposal missed the second committee deadline, resulting in its defeat for this session.

### Alternative and Complementary Medicine

The MMA strongly opposed the original version of a bill introduced last year

*CAPITOL GAINS cont. on page 36*

# VIEWPOINT

**Robert K. Meiches, M.D.**
*Chair, MMA Board of Trustees*



## MMA Initiative 2000 Reveals Wide Range of Concerns

The past several months were an extraordinarily busy and productive time for the Minnesota Medical Association (MMA). Our efforts at the Capitol led by our MMA Committee on Legislation, chair Peter Amadio, M.D., and Dave Renner, MMA director of state and federal legislation, resulted in a successful session that included passage of the prompt pay bill, a ban on contract stacking between categories of health care coverage, and defeat of a proposal to weaken the expert witness certification requirements in the medical negligence law.

Our strong voice at the Legislature and in meetings with other organizations comes from the fact that the MMA speaks for the majority of Minnesota physicians. Our power depends on our membership.

If we are to maintain this position of strength, the MMA must continuously check to make sure the lines of communication are open and that our priorities truly reflect the goals and concerns of Minnesota physicians.

To that end, the MMA launched Initiative 2000. We asked individual members, component medical societies, and MMA committees to identify the crucial advocacy issues the MMA must address in the next two years to remain an effective advocate for physicians and their patients.

Advocacy was defined to include not only legislative goals but also public health and legal issues. To date, we have received input via e-mail from more than 200 individual members. In addition, 23 groups, including some component medical societies, specialty societies, and MMA committees brainstormed answers to our question about priorities.

Preliminary review of the data suggests that MMA members are interested in a wide range of issues, including support for medical education, Medicare payment disparities, repeal of the sick tax, and managed care accountability. They also support advocacy for affordable health care, public health improvement, and myriad other goals. Initiative 2000 data will be useful to the MMA Board of Trustees, leaders, and staff, as well as to the House of Delegates, as they set the MMA's direction. This input will also give us a head start in preparing for the crucial 2001 legislative session.

On your behalf, the MMA has also been reaching out to other members of the Federation of Medicine in an effort to improve our collaboration. As we continue to move forward, we must work closely and efficiently with component and specialty societies as well as with the AMA. Our goal is to streamline and strengthen our advocacy on overlapping and key issues.

In my relatively new role as board chair, I am continually impressed by the strength of the MMA staff led by our Chief Executive Officer Paul Sanders, M.D., and by the many fine individuals who provide leadership and support to our association. We continue to have tremendous success, but we need to work harder and "smarter" to make even more progress. We hope to link with each of you via the Internet, telephone, or personal contact. By seeking your opinions, ideas, and support, we can become more responsive to changing issues. We all have frustrations with the current health care environment; we also have ideas and opportunities to make significant contributions. Please speak up! Contact MMA staff or leadership. We want to hear from you.

# Physicians May Receive More Questions about Asbestos-Related Disease

The Minnesota Medical Association Environmental Health and Occupational Medicine Subcommittee is assisting the Minnesota Department of Health (MDH) with distributing information about health issues related to asbestos exposure. Recent news reports about Minnesota deaths linked to asbestos-contaminated vermiculite may generate increased public concern about the problem and lead to more questions for physicians.

Vermiculite is a mineral substance used for a variety of purposes, including insulation and other construction applications, and as an additive to gardening products.

From 1924 to 1990, most of the world's vermiculite supply came from the mine in Libby, Montana, a town of 2,700. It was eventually discovered that vermiculite ore from this mine was contaminated with asbestos. At least two vermiculite-processing plants operated in northeast Minneapolis for several decades.

Exposure to asbestos may increase the risk of serious diseases such as asbestosis, lung cancer, and mesothelioma. Some illnesses may take 10 to 40 years to appear.

Individuals who worked with vermiculite, as well as any family members who were exposed to dust on their clothing, should consult a physician, says Allan Williams, Ph.D., an epidemiologist at MDH. They should also quit smoking or avoid starting. People who have been exposed to asbestos and who also smoke have 90 times the normal risk of developing lung cancer.

> "Asbestos is in our environment as a legacy of all the uses we've had for it over the years."
>
> *Allan Williams, Ph.D.*
> *Epidemiologist, MDH*

Physicians may recommend a thorough examination, including a chest x-ray and lung function tests for those at increased risk, says Williams. "Even if no abnormalities are found, tests will provide a baseline if an illness occurs later," he says.

Because most people living in urban areas probably have detectable asbestos in their lungs, Williams says it is difficult to determine if people who lived in the communities near the processing plants are at higher risk. "Asbestos is in our environment as a legacy of all the uses we've had for it over the years," he says.

The Environmental Protection Agency (EPA) and the Consumer Product Safety Commission are investigating whether to require warning labels or seek recalls of certain lawn and gardening products containing vermiculite. Pending more tests, EPA officials advise consumers to assume that lawn products containing vermiculite are contaminated with hazardous levels of asbestos and to take the following precautions: (1) When working with vermiculite in a confined space, wear a respirator with a HEPA cartridge to avoid breathing asbestos fibers; (2) When using potting soil that contains vermiculite, keep the soil damp to minimize dust, and pot plants outside; (3) Rather than shaking dusty clothes, take them off outside and put them in the washing machine immediately.

The MDH Health Alert Network Web site contains information tailored for the public and health care professionals and includes links to federal sites. Visit the MDH at: www.health.state.mn.us/divs/dpc/han/asbestos.htm.

# MMA Invites Officer Nominations

Elections for the MMA offices of president-elect, vice president, secretary, treasurer, speaker of the MMA House of Delegates, and vice-speaker of the House of Delegates will be held at the 2000 MMA Annual Meeting September 13–15 in Duluth.

If you are interested in running for election, or if you would like to nominate another MMA member, please contact your representative on the MMA Nominating Committee.

Nominating committee members are: Judith Shank, M.D., chair; John Gates, M.D., (East Metro); Karen Dickson, M.D., (West Metro); Nicholas Bernier, M.D., (North Central); Paul B. Sanford, M.D., (Northeast); Knute E. Thorsgard, M.D., (Northwest); Audrey Nelson, M.D., (Southeast); and Greg Clark, M.D., (Southwest).

Meeting information, including the registration form, is available on the MMA Web site at www.mnmed.org under the "What's New" link. Direct questions to Vicki Westling at 800/342-5662 or 612/362-3764.

*CAPITOL GAINS from page 33*

regarding the practice of complementary and alternative medicine. The proposed legislation would have given practitioners of complementary and alternative medicine unprecedented immunity from civil and disciplinary actions.

The final version of the bill, which Gov. Ventura signed into law, establishes an office within the Department of Health to investigate complaints about unlicensed complementary and alternative medicine practitioners. It also allows civil penalties against practitioners in these cases, and enables the Health Department to revoke their right to practice.

The legislation does not establish minimum training or education standards for practitioners of complementary and alternative health care and calls for little state oversight of the scope of practice of these practitioners. First-year funding for the new office will be $97,000, primarily for one full-time investigator, support staff, and supervision.

The MMA did not support this bill, but considers the current language to be an improvement over previous versions.

### Provider Tax Moratorium

Although a three-way compromise among the House, Senate, and Gov. Ventura to divide surplus permanent funds killed a proposal to temporarily suspend collection of the sick tax, the issue received exceptional support in this non-budget short session. The bill had strong support from Republicans and Democrats in the House but failed to receive support from Gov. Ventura or the Senate DFL leadership. For the second year in a row the sick tax was included in the final discussions of the omnibus tax bill up until the final days of the session.

### Poison Control Funding

In the Omnibus Supplemental Appropriations Bill, the Legislature approved $790,000 to support the continuation of the Poison Control Center, which is currently administered by Hennepin Medical Center. Without this appropriation, the center would have been forced to discontinue its service. This appropriation is for one year only, requiring the Minnesota Department of Health to return next year to seek an ongoing, stable funding source.

### U of M Molecular and Cellular Biology Building

The University of Minnesota Academic Health Center was granted its request for $35 million in capital bonding to complete construction of the new molecular and cellular biology building on the Minneapolis campus.

### Patient Protection Provisions

Two bills designed to extend additional rights to patients who are dealing with health plans—one introduced by Attorney General Mike Hatch, and the other by a consortium of patient advocates—failed to pass this session. Both bills are expected to return in 2001.

### Varicella Vaccine

Legislation to mandate varicella vaccines for children entering daycare and kindergarten failed to pass. The Minnesota Department of Health intends to pursue this proposal vigorously during the 2001 session.

### Seat Belt Primary Offense

Legislation that would allow law enforcement officers to detain motorists for not wearing seat belts once again failed to pass. This legislation received many hours of hearings in both the House and Senate, but in the end was deemed too controversial. The MMA will continue to strongly support legislation that would make not wearing a seat belt a primary offense.

### Medical Record Data Privacy

Attorney General Mike Hatch's bill to ban Minnesota Department of Health access to patient medical records without patient consent did not receive either a House or a Senate hearing this year. Although the bill generated some media attention early in the session, legislators found it was too complex an issue to address during a short session.

### School Bus Driver Physicals

The Omnibus Education Funding Bill includes a provision governing who can perform physical exams for school bus drivers. The new law, which treats these exams the same as those for truck drivers, references a federal statute stating that physicians, chiropractors, nurse practitioners, and physician assistants can perform the required physical examinations if state law says it is within their scope of practice. It still does not specify whether these physical examinations are within the scope of practice of a chiropractor.

### Safe Needles

Effective June 10, any health care employer in Minnesota with 25 or more employees must have a safety committee or a subcommittee to review and make recommendations on ways to reduce employee exposure to needle sticks. This legislation is similar to existing requirements under federal OSHA laws.

# NEWS DIGEST

*People and places making medical news*



## People & Places

The **Institute for Research and Education HealthSystem Minnesota** has named internist and infectious diseases specialist **Allan Kind, M.D.,** of **Park Nicollet Clinic,** its Educator of the Year. Kind is director of medical education for HealthSystem Minnesota and vice president of the institute. **Roger Mazze, Ph.D.,** was named Researcher of the Year. Mazze is a vice president of the institute and senior vice president of research and development for the **International Diabetes Center,** and a clinical professor of family practice and community medicine at the **University of Minnesota.**

**Park Nicollet Clinic HealthSystem Minnesota** presented its annual Community Service Awards at a meeting of its consultants April 18. This year's winners were pulmonologist **A. Stuart Hanson, M.D.,** a leader in the public health fight against tobacco use and president and CEO, **Institute for Research and Education; Evelyn, Richard,** and **Glenda Struthers,** who developed a comprehensive care service for patients with Parkinson's disease; and **Suzann Wancket,** who teaches karate to children with ADHD and developmental problems.

**Woodwinds Health Campus,** in Woodbury, will open its doors to patients Thursday, August 3. The campus will house a 70-bed hospital and outpatient center, primary and specialty care clinics, and a natural therapy clinic. Woodwinds is a collaboration between **HealthEast Care System** and **Children's Hospitals and Clinics.**

St. Paul–based **HealthEast Care System** has selected **Minneapolis Radiation Oncology, P.A.,** to provide radiation therapy consultation and treatment for its cancer patients. Radiation oncologist **Mark A. Bisignani, M.D.,** will head the radiation therapy department at **St. John's Hospital.**

**Peter Polverini, D.D.S., D.M.Sc.,** will replace **Michael Till, D.D.S., Ph.D.,** as dean of the **University of Minnesota School of Dentistry.** Polverini has chaired the department of oral medicine, pathology, and oncology at the University of Michigan School of Dentistry since 1995. He also chairs the Oral Medicine and Biology-1 Study Section of the National Institutes of Health Center for Scientific Review. Polverini earned his bachelor's degree in biology and his dentistry degree from Marquette University, and his doctor of medical sciences degree and certificate of advanced training in oral and maxillofacial pathology from Harvard University.

**HealthPartners** is renovating and expanding its **Physicians Clinic Ramsey Clinic** in St. Paul and renaming it **HealthPartners Ramsey Clinic-Midway.** The changes also include the addition of more than 20 physicians and nurse practitioners, an automated medical records system, and interpreters to help patients who speak Hmong, Vietnamese, or Spanish.

The **Edina City Council** approved by a vote of 4–1 a **Fairview Southdale Hospital** expansion plan that will add eight operating rooms, a heart and vascular center, a 1,000-car parking ramp, and a skyway to cross France Avenue. The $55 million expansion is scheduled for completion in 2003.

The **University of Minnesota** received a $5 million gift for cancer and heart research from an anonymous donor. The university is raising $500 million for medical and public health as part of Campaign Minnesota, its $1.3 billion capital campaign.

*Send us your news:*

Minnesota Medicine
3433 Broadway Street NE
Suite 300
Minneapolis, MN 55413
Fax: 612/378-3875
e-mail: mm@mnmed.org



# Public Health

### New Commission to Focus on End-of-Life Care

The Minnesota Department of Health and a coalition of health care provider organizations, the Minnesota Partnership to Improve End of Life Care, have formed the Minnesota Commission on End of Life Care to develop policy recommendations for improving the quality of health care provided to dying patients. The commission will study options for terminally ill patients and promote appropriate use of hospice services and palliative care. Minnesota Health Commissioner Jan Malcolm and Barry Baines, M.D., of HealthPartners, will co-chair the commission, which is funded through a grant from the Robert Wood Johnson Foundation.

### Minnesota Outlaws Dangerous Party Drug

The Minnesota Bureau of Criminal Apprehension has declared gamma butyrolactone (GBL) a chemical ester of the illegal party drug GHB. The move makes the sale of GBL, also known as Verve or scoop, a felony in Minnesota. The drug, which has been sold as a dietary supplement and used at parties to get high, quickly converts to GHB when consumed, according to the federal Drug Enforcement Administration. Last year more than 5,700 people nationwide overdosed on GHB, GBL, and related compounds. Both drugs can cause comas and death.

### Minnesota Grocers to Sell Irradiated Meat

Twin Cities supermarkets may be among the first in the nation to sell irradiated meat. Huisken Meats of Chandler, Minnesota, plans to begin distributing frozen ground beef patties exposed to low levels of radiation, which kills bacteria and other organisms. The Minnesota Health Department, the American Medical Association, and the Minnesota Medical Association endorse food irradiation (see related articles in the November 1999 *Minnesota Medicine*).



# Socioeconomics

### HMO Enrollment Declines by Half Million

Enrollment in HMOs dropped by more than 500,000 between January 1 and July 1, 1999, according to the latest findings of InterStudy Publications' "HMO Industry Report 10.1." For the first time, the semi-annual growth rate declined, with enrollment decreasing by .6 percent since January 1, 1999. The annual growth rate of total HMO enrollment declined from 7.9 percent in July 1998 to 2.6 percent in July 1999. The declining enrollment coincided with the HMOs' increasing premiums to cover financial losses.

### Blue Cross Policy Change to Help People Quit Smoking

Blue Cross and Blue Shield of Minnesota in May announced that its members who smoke may see their doctor for the specific purpose of quitting smoking. Blue Cross will reimburse physicians for these office visits as part of existing coverage. Previously, physicians were asked to counsel smokers to quit smoking as part of clinic visits for other purposes.

### New Minnesota Start-ups to Provide e-Health Plans

Two new Minnesota companies are developing Web-based health plans designed to help consumers select doctors on the basis of price and quality. HealtheCare Inc., of St. Louis Park, has secured $23 million in private financing, and Minneapolis-based Vivius Inc., led by Lee Newcomer, M.D., former senior vice president for UnitedHealth Group, has $12 million in venture capital. The companies offer a new health insurance option to individuals and organizations with "defined benefits" health plans.

### AMA Sues UnitedHealthcare over Doctor Fees

The American Medical Association has filed a class-action lawsuit against Minnetonka-based United-Healthcare Inc. for reducing payments to New York physicians by using invalid data to determine reimbursement rates. The AMA contends patients paid higher doctors bills to make up the difference. The suit seeks compensation, including punitive damages.



# Research & Innovations

### Animal Study Reveals Cause and Cure of Bone Cancer Pain

University of Minnesota Cancer Center researchers have identified and disabled the cell that causes bone cancer pain in laboratory animals. The research team, led by neuroscientist Patrick Mantyh, Ph.D., and orthopedic oncology surgeon Denis Clohisy, M.D., found that a naturally occurring substance, osteoprotegrin (OPG), blocked the osteoclastic (bone loss) process in animals and the accompanying pain.

### New Treatment for Patients with Liver Cancer

Mayo Clinic researchers have developed a new treatment for cholangiocarcinoma, a cancer of the bile ducts associated with the disease primary sclerosing cholangistis. Researchers, led by Gregory Gores, M.D., found that treating patients with radiation and chemotherapy before removing the liver reduced the risk of recurrence. Cancer recurred in only one of 11 patients who had the treatment and then a transplant. Others were disease free up to six years later. Cholangiocarcinoma is difficult to treat because the tumors become entwined in the ducts, and transplantation has been ineffective because the tumors recur in the new liver.

### Trauma Lingers for Teens Long after Tornadoes

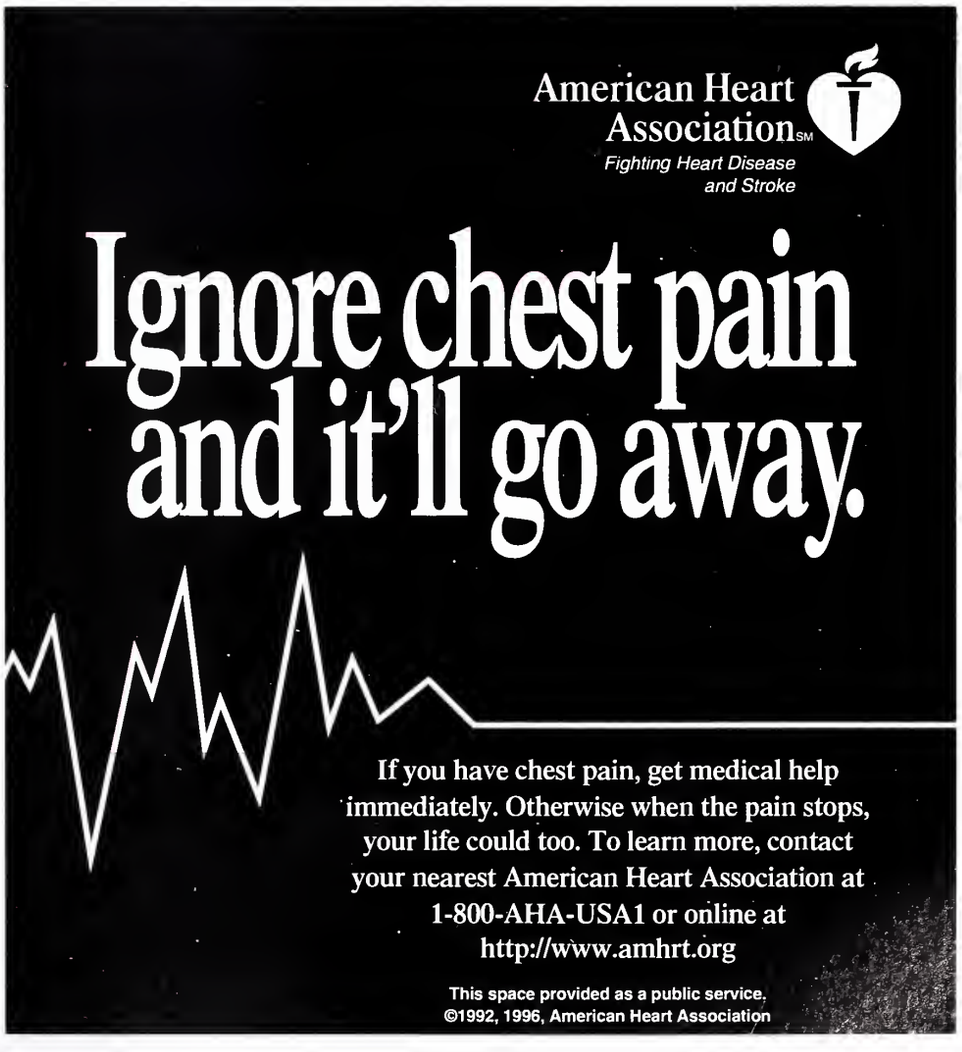
Teens who survived the 1998 tornadoes in Le Center and St. Peter, Minnesota, experienced moderate symptoms of stress long after the storms. Researchers at Minnesota State University in Mankato found that about 40 percent of the 414 junior and senior high schoolers they studied had nightmares, flashbacks, irritability, and difficulty sleeping or concentrating six weeks after the event. Psychologist Barry Ries, Ph.D., who directed the study, said young people who talked about their feelings did better than others.

### Diet Protects Older Women against Diabetes

According to a six-year study of nearly 36,000 older Iowa women, whole-grain and fiber-rich foods reduce the risk for type 2 diabetes. The study, directed by University of Minnesota researcher Aaron R. Folsom, M.D., M.P.H., found the risk of diabetes was 21 percent lower in the women with the highest whole-grain intake; 22 percent lower for those with the highest dietary fiber intake; and 33 percent lower for those with the highest magnesium intake.

### Anti-depressant Cools Hot Flashes

Mayo physician Charles Loprinzi, M.D., and fellow researchers at the Rochester clinic found that a modest dose of the anti-depressant Effexor reduced hot flashes by about 60 percent in a study of 229 menopausal women, the largest such study so far. Why the drug works is a mystery.

# Rates, Trends & Data



### Hennepin County Seniors Face High Risk of Injury

Hennepin County seniors have one of the highest injury rates in the state and nation. Falls account for 76 percent of the injuries and 67 percent of the deaths. A survey of seniors between 1993 and 1997 found hospital admissions after a fall cost an average of $12,000, and seniors' hospital charges accounted for 37 percent of all injury-related hospital charges, although seniors make up only 12 percent of the population. The report's authors speculated that Hennepin County seniors' older age and tendency to have lower bone density, and the area's climate may contribute to the high incidence of injury. The report "Injury and Violence in Hennepin County: Seniors" is available online at www.co.hennepin.mn.us/commhlth/reports/SeniorHealth/reports.htm.

### Minnesota's Minority Teens Show Higher Pregnancy Rates

At 119.4 per 1,000 girls aged 15 to 19, Minnesota's black teen pregnancy rate is higher than the national average for all girls that age (52.3 per 1,000) and the state average for white teens—26.1 per 1,000. The rate for Hispanic teens is even higher—137.4 per 1,000. The disparity has alarmed health officials and led to the formation of a coalition to reduce the pregnancy rates among minorities. The coalition of 55 community organizations and the Minnesota Department of Health will work on public awareness, pregnancy prevention, culturally specific services, and public policy.

### Bankruptcies Blamed on Medical Bills

Medical expenses accounted for about 40 percent of bankruptcy filings in 1999, according to a recent study in "Norton's Bankruptcy Adviser." The study found that a half million Americans went bankrupt largely because of medical expenses. Seniors and women, as well as families headed by single women, were hit hardest.

*Information compiled from the* St. Paul Pioneer Press, *the Minneapolis* Star Tribune, *the Associated Press, and news releases.*

INTERNAL MEDICINE PHYSICIANS

United Pain Center in St. Paul is seeking two BE/BC internal medicine physicians interested in working in a multidisciplinary setting managing patients with acute, subacute and chronic pain. This is a challenging opportunity to work with a highly motivated and successful team in an outpatient setting. The team consists of anesthesiologists, internal medicine, nurse practitioners, psychologist and social worker. Our center offers a unique blend of interventional procedures, case management, psychological services and complementary therapies with consultative services provided to the hospital. Contact Allina Hospitals and Clinics, Physician Recruitment, 8450 City Centre Drive, St. Paul, MN 55125.
800-248-4921 or
recruit@allina.com.
Not a J1 site.

www.allina.com

ALLINA.
Hospitals & Clinics

"...IF ALL WOMEN OVER 50 HAD REGULAR MAMMOGRAMS, THEIR DEATH RATE FROM BREAST CANCER WOULD DROP BY A THIRD."

– *ACOG*

Take the first step.
Call 1-800-ACS-2345 for information that can help you make an impact.

give the word.
MAMMOGRAM
EVERY YEAR AFTER 50

Ad Council
A Public Service of This Publication

AMERICAN CANCER SOCIETY

# For complete healthcare Internet services, there's just one name to remember




THE INTERNET RESOURCE DESIGNED EXCLUSIVELY FOR HEALTHCARE PROFESSIONALS

## A total online service featuring healthcare resources, helpful links and professional services

In your business, quick access to information is critical. The MMIC Medical Services Portal is a medical provider's best choice for complete online services, providing physician practices with the tools and technology needed to remain strong and competitive in today's rapidly changing marketplace. MMICmedportal provides you with online business tools, technology and information system solutions as well as clinical and practice management resources, local news and weather plus a nationwide physician directory. Whether you need to search for possible side effects of the latest FDA approved drug, obtain reference material on a rare congenital condition or contact a medical colleague from across the nation, you can count on MMICmedportal.

## Save time and improve your efficiency

Chances are you already rely on the Internet at home. Why not make the Internet a part of your office as well? Brought to you by Midwest Medical Insurance Company, MMICmedportal was designed by medical professionals for medical professionals...your assurance of reliable information you'll find at your fingertips.

***To learn more about how MMICmedportal can work for you, call 1-800-328-5532 or visit us at www.mmicmedportal.com***

The MMICmedportal is a service of the Midwest Medical Group of Companies

MMIC™ medportal

*Progressive Internet Services for Healthcare Professionals*

# Children *Are Dying for* *Some* Exercise



© 1999 G & M DAVID DE LOSSY/THE IMAGE BANK

*Without enough unstructured, spontaneous motion, children are prey to a life of pain.*

By Pete Egoscue

"Youth," Somerset Maugham wrote, "is wasted on the young." A good line, but I'm afraid it may no longer be true. And I do mean afraid. Our young seem to have lost their right to youth and along with it the right to health.

Kids are growing up faster than ever. It is happening both socially and psychologically. Preschoolers are run through testing mills akin to college admission grinds, 8-year-olds have schedules as busy and carefully orchestrated as corporate CEOs', and adolescents are a prime source of cheap menial labor and flash floods of discretionary spending ("You've seen 'Titanic' how many times?").

There are numerous examples of this accelerating social maturity. Law-and-order advocates want to try children as adults for breaking the law and are even seeking the death penalty for kids. Educational reformers are suggesting we abolish high school because kids are too mature to tolerate the traditional regimen, and, in Atlanta, they've done away with recess for more productive uses of time.

Almost every day I see the victims of this hectic pace and drive for productivity in my sports injury and exercise therapy clinic. Kids come in bandaged and braced, halt and hurting, like 50-year-olds. Many of these young athletes regard their bad knees, wrenched ankles, and sore shoulders as confirmation that they are playing like the pros. Almost all of them believe the fragile human body can't take the punishment meted out on a basketball court or ball field. They're proud to be banged up and think pain is just part of life. The nonathletes are equally resigned to bad backs, sore wrists, headaches, and other chronic pain symptoms.

Those kids aren't dumb. Their bodies can't take the punishment, and pain is part of life, but it is a part that until recently was rarely visited by a person under 40. Our kids are getting hurt, not by the games they play or by random mishaps but by living a sedentary and wildly premature adult lifestyle.

Youth has a purpose. From a musculoskeletal standpoint, the years between birth and the early 20s are important for building a solid foundation that ensures muscles and joints will operate properly for the rest of life. This happens only one way: unstructured, spontaneous movement. As children, we are programmed by nature to be little whirling dervishes. Crawling, rolling over, walking, running, skipping, throwing, and the like are all intended to form vital physical functions. Moreover, healthy development of the brain stem is directly linked to movement, starting in a mother's womb and continuing for at least the first 10 years of life.

But good genes cannot override the bad effects of an environment that offers fewer and fewer opportunities for unstructured, spontaneous motion. Children whose movements are limited because they're spending their time in front of computers or televisions, or being chauffeured to the next appointment, are at risk of never achieving their full potential.

Learning occurs but it comes harder. While children can walk and run, the supporting musculoskeletal functions are weakened, inviting serious injuries that a generation or two ago probably would have been minor sprains or bruises.

Ominously, this is just the beginning. Without the musculoskeletal basics, youngsters mature into adults plagued by chronic pain. Children who do not move because the culture has decided that they have better things to do, grow up to be adults who cannot move. What is awaiting such kids? Obesity, heart disease, falls from dizziness and lack of balance, migraines, joint replacement surgery, and a long list of other horrors.

Just as there are basic requirements for food, water, and sleep to keep the human body going, motion cannot be intensely curtailed without damage. Today's kids have followed their elders right into this danger zone.

My experience persuades me that much of what medical science regards as chronic disease has a significant motion-deprivation component. The body's internal systems and subsystems are energized by constant muscular interaction. As this interaction subsides, good health also ebbs.

There are neurological effects as well. Serious research should be done on whether children with attention-deficit disorders, other learning disabilities, and behavior problems are actually presenting symptoms of overall motion starvation. We must know if these kids need doses of drugs or doses of recess.

More motion might be a better option for school districts considering later class starting times for teenagers, who are said to have a biological predisposition for staying up late and sleeping longer in the morning. I may be missing something, but it seems to me the only relevant biological predisposition at issue is the one violated by the invention of the light bulb. We are

programmed to work by day and sleep when the sun goes down; kids and many adults stay up late because they're not physically tired. Teens go to malls and movies, watch TV, and ram around in cars for enough stimulation to get tired.

I find that attitude, behavior, and education problems in youngsters increase or decrease in direct relation to how much physical activity they are allowed. It is not a matter, however, of merely burning off excess energy. Modern technology has eliminated most of the naturally occurring stimuli that kept our ancestors limber, strong, and healthy.

This has to be replaced in some way. For adults, it takes a regular motion-intense program that moves muscles that are not being regularly engaged. However, teenagers and younger children need periods of intense, unstructured play without any purpose other than having a good time.

Instead of Ritalin, Prozac, or knee braces, I'd like to see parents prescribing playgrounds, open fields, and tall trees for climbing. If moms and dads assess the kind of motion their children are getting, they'll quickly realize that it tends to fall into patterns that hold for days and weeks at a time: After school it's soccer practice, piano lessons, hanging out at the mall, computer games, and the like. Start by breaking those patterns.

If left to choose, children instinctively seek the joy of movement, the well-spring of human life. With enough time and latitude, they will find ways to properly engage most of their musculoskeletal functions. In fact, kids drive adults crazy with all their frenetic activity, and it's why we have a tendency to try to impose structure and "productivity" on them.

Operating the modern tools of productivity keeps most adults trapped in an invisible box that is about four feet by four feet in dimension. It hangs in front of us, waist high. We type and answer the phone in it, ring up groceries and turn a steering wheel in it, push the lawnmower and load the washing machine in it; for recreation, we stay in the box to tune the TV, prune the roses, read a good book, and ride our bike through the park. The office, workplace, and home environments have been arranged to accommodate the box.

Until relatively recently, we took our bodies to work by bending, stretching, and pulling; now work comes to us. Meanwhile, the joints and muscles, that are designed to work outside the boundaries of this new work space get very little use.

Today's young people are showing acute symptoms of living in this box because they are members of the first generation unable to spend significant time outside its confines. A '50s, '60s, and early '70s childhood still permitted many hours a week of activity that used the full range of motion and physical functions that support it. Not anymore. Children and their parents are active and hard working, but in most cases 100 percent of this work is done with about 20 to 30 percent of their musculoskeletal functions.

As humans, we lose physical functions that we don't use. They never vanish entirely, but the functions, when summoned, have atrophied. At that point a vicious circle sets in: It hurts or is difficult to move, movement is curtailed, it hurts even more, movement is further limited, and so on. The box grows smaller and smaller.

When I visit high schools around San Diego, my hometown, I see a lot of sullen teenagers. What else is new? But I have a different take on adolescent attitudes. I think they look and act sick. Not demented or weird. Those kids and their counterparts all over America don't feel good. The motion they need to sustain mental and physical health is not occurring.

It's been a long while since I last heard a mother or father tell a child to "stand up straight." Being straight and tall was the same as being strong and healthy. If we don't break these patterns and the young lose the right to youth, the right to spontaneous, unstructured motion, all we really can expect is for them to stand still and stand the pain. Like adults.

MM

*Pete Egoscue, an exercise physiologist, is the author of* Pain Free *(Bantam, 1998). Reprinted with permission,* © New York Times, 1998.

**CELEBRATING 15 YEARS**

**Graduate Programs in Software Engineering, IT & IS (GPSE)**

**University of St. Thomas**

is celebrating 15 years of **providing quality software development educational opportunities** to the Twin Cities and MN.

GPSE offers **master's degree** programs and **graduate certificate** programs, evenings and Saturdays. If you are interested in **professional development**, GPSE offers mini master programs and two-to-four day seminars in C++, JAVA, Objects, UNIX, Visual Basic, etc.

15TH ANNIVERSARY
UNIVERSITY OF ST. THOMAS
GRADUATE PROGRAMS IN SOFTWARE ENGINEERING, IT & IS

**651.962.5500**
**www.GPS.stthomas.edu**
**gradsoftware@stthomas.edu**

University of St. Thomas admits students of any race, color, creed and national or ethnic origin.

EDITORIAL

# Pharmacotherapy in ADHD

## *Guidelines for Prescribing Stimulant Medications in Young Children*

*The practice of treating ADHD with drugs has sparked a heated debate, complicating the choices for physicians and their patients.*

Gerald J. August, Ph.D., and George M. Realmuto, M.D.

Treatment with the psychostimulant drugs methylphenidate, dextroamphetamine, and pemoline continues to be the most widely used intervention for children diagnosed with attention-deficit/hyperactivity disorder (ADHD). Such drugs can often produce immediate and extensive changes, significantly improving attention span, impulse control, compliance, and hyperactivity. Although individual responses to psychostimulants can vary considerably, one study using a wide range of doses of methylphenidate and dextroamphetamine found that 96 percent of children improved behaviorally as a result of one or both drugs.[1] Although relatively uncommon, side effects such as insomnia, appetite suppression, and motor tics may emerge. However, these side effects are usually mild and can be easily reversed with medication adjustment.

The controversy surrounding ADHD treatment stems from the dramatic surge in methylphenidate production and use in the United States in the past decade.[2] That increase has invited the charge that schools, overstressed families, and managed care organizations are pressuring physicians to prescribe medication as a quick fix when other options, such as improved parenting, smaller classes, and emotional support, might be more appropriate.[3] Indeed, the rise in stimulant use begs the question of whether the prevalence of ADHD has truly increased during this period, methods of diagnosing ADHD have improved, ADHD is recognized by physicians and other health care practitioners more often, or whether increases in stimulant abuse, diversion, and prescription for profit account for the higher rates.[2]

In any event, the upward trend in use of stimulants for children with ADHD clearly reflects changes in society. These changes include greater consumer awareness of treatment options, wider acceptance of ADHD as a medical condition, and the growing number of families with two working parents, resulting in more young children in structured day care and preschool, where symptoms may be identified earlier and tolerance for disruptive behavior is lower.

### *Stoking the Fire*

The debate over the drug treatment of ADHD has heated up in response to a recent study published in the *Journal of the American Medical Association* that reported a two- to threefold increase in the use of stimulant drugs in children aged 2 to 4 years from 1991 to 1995.[4] Concerns about the use of stimulant drugs during the early childhood years have centered on their potentially deleterious effect on brain development and on side effects such as appetite suppression that have been alleged to retard physical growth. Equally worrisome to parents are the wide variations in favored treatment modalities across providers, and lack of controlled studies.

For the past 50 years, special interest groups—the Church of Scientology, for example—have challenged even the existence of childhood psychiatric disorders such as ADHD and have protested the use of psychotropic medication in children. Some consumer-advocates and politicians have used media tactics to frighten parents and discourage rational consideration of medication. Nonetheless, the use of stimulants and other drugs to treat ADHD in children has continued to rise, and in the absence of empirical data about their use in this age group, practitioners have been forced to rely on clinical experience and judgment in prescribing these medications.

Decisions about treatment for children with ADHD have become increasingly complex. The following recommendations can help physicians make responsible decisions about therapeutic drugs for their young patients with this disorder.

### *ADHD and Drug Therapy in Young Children: How to Make Clinically Responsible Decisions*

• Determine whether the reported behavioral problems meet standardized criteria for ADHD, such as those codified in the American Psychiatric Association's DSM-IV, or are better explained as normal behaviors for the

child's developmental level, a transient expression of developmental immaturity, a learned response to enduring psychosocial factors such as ineffective discipline methods and/or poorly supervised environments, or as situational reactions to stressful life events. Pharmacotherapy should only be considered if the diagnosis can be verified. (The American Academy of Pediatrics recently released recommendations for diagnosing ADHD in children aged 6 to 12. See "Diagnosing and Treating ADHD in Children," page 51.)

• Consider the possibility that conditions other than ADHD may be causing or contributing to the clinical picture. During the early childhood years, various psychiatric, neurological, and medical disorders (e.g., traumatic brain injury, infectious disease process, epilepsy, mental retardation, infantile autism, reactive attachment disorder, fetal alcohol syndrome) can simulate ADHD. When such disorders are comorbid with ADHD, tailor the treatment plan accordingly.

• Once an ADHD diagnosis has been verified, determine the severity of the condition and its potential consequences for the child and family. Behavior that is self-injurious, dangerous to others, or seriously disruptive to family life (e.g., repeated expulsion from day care affecting parental employment) may require the swift intervention drug therapy offers.

• When behavioral problems are not severe, first consider treatment approaches such as parent education in principles of child development and the use of token systems, time-out programs, and other behavior modification methods. These approaches are generally considered essential for a complete treatment program in any case. Of course, the success of such interventions will hinge on the resources available to the parent, the time available to implement such interventions, and the motivation of the parents to persist with them.

• If it appears that behavioral interventions cannot be competently implemented or are unlikely to modify troublesome behavior, consider alternative treatment. If behavioral problems continue despite intervention and risk of functional impairment is high, give the parents other treatment options (e.g., medication, hospitalization, therapeutic foster care), taking into account the family's financial resources and insurance coverage.

• If medication therapy is a likely option, discuss the advantages and risks of the medication, including efficacy, safety, and follow-up in this age group. Discuss how medication would be monitored, re-evaluated, and adjusted. Explain possible side effects and how they would be managed.

• Assist the parents with decisions by providing supplementary educational materials and encouraging them to ask questions.

• Support the parents' decision making while keeping in mind issues of neglect. As mandated reporters of abuse and neglect, physicians may in certain circumstances need to consider medical neglect of the child. MM

*Gerald August and George Realmuto are professors in the Department of Psychiatry at the University of Minnesota.*

REFERENCES

1. Elia J, Borcherding BG, Rapoport JL, Keysor CS. Methylphenidate and dextroamphetamine treatments of hyperactivity: are there true nonresponders? Psychiatry Res 1991;36:141-55.
2. Goldman LS, Genel M, Bezman RJ, et al. Diagnosis and treatment of attention-deficit/hyperactivity disorder in children and adolescents. JAMA 1998;279:1100-7.
3. Gibbs N. The age of Ritalin. Time 1998;152:86-97.
4. Zito JM, Safer DL, dosReis S, et al. Trends in prescribing psychotropic medications to preschoolers. JAMA 2000;283: 1025-30.
5. Arnold LE. Treatment alternatives for attention-deficit/hyperactivity disorder (ADHD). J Attention Disorders 1999;3(1): 30-48.

**Brainerd Medical Center, P.A.**
**2024 South Sixth Street, Brainerd, MN 56401**
**218-828-7105 • www.brainerdclinic.com**

**PEDIATRIC OPPORTUNITY**

A Pediatric opportunity exists at Brainerd Medical Center. Would you like to live in a premiere vacation area in a community that will meet any family need?

If so, the Brainerd area is just for you! Look at the possibilities our multi-specialty clinic has to offer:

- No primary call
- Four day work week
- General Pediatric practice plus
- Enlarging consultative practice
- Active teaching program for med students and residents
- Excellent Family Practitioners
- Great Nurse Practitioners
- Superior Urgent Care and ER coverage
- Private Catholic hospital will exceed your expectations
- Above average income opportunity

To obtain more infromation about this Pediatric opportunity, please feel free to contact Pediatrician, Dr. Michael V. Severson, or Curt Nielsen, Clinic Administrator at the above address or phone number.

# Preventing Upper Extremity Overuse Injuries in Child and Adolescent Athletes

Andrew J. Thomas, M.D., F.A.A.P., and George R. Biltz, M.D.

ABSTRACT

**Physicians who treat young athletes must not only correctly diagnose specific musculoskeletal injuries but also pay attention to factors that predispose the patient to the injury. This article reviews the intrinsic and extrinsic factors that can lead to upper extremity overuse injury in child and adolescent athletes and describes the physician's role in preventing injury in this population.**

Organized sports have become a fact of childhood in the United States. From soccer to swimming, the opportunities for action abound. But with opportunity has come increased risk of injury. While physicians cannot eliminate the causes of most acute injuries, they can play a role in creating a climate for safer play and helping young athletes avoid overuse injuries.

Overuse injuries of both the upper and lower extremities in children are often linked to factors that can be modified or improved. Failure to identify and address these factors results in delayed recovery or recurrence of injury. This article briefly reviews factors—both intrinsic and extrinsic—that can predispose child and adolescent athletes to upper extremity overuse injury and describes the physician's role in preventing injury in this population. Intrinsic factors relate to an athlete's individual anatomy and physiology; extrinsic factors are variables that act upon the individual athlete (see the table, page 48).

## *Intrinsic Factors*

### Biomechanics

Biomechanics, the connections and forces that allow the body to move, play a crucial role in the development of upper extremity overuse injuries in all athletes. Athletes vary significantly in how they perform overhead motions, such as throwing a baseball or serving a volleyball. Normal biomechanics require balanced muscle strength and coordination appropriate to the motion.

Abnormal biomechanics predispose athletes to rotator cuff fatigue, chronic inflammation, and acute glenoid labral tears. In throwing and racquet sports, for example, the shoulder is the link that transfers the ground reactive forces through the legs and trunk to the arm and on to the racquet or ball. A unidirectional force is transferred, via the torso and spine, to a rotatory force that is then used for throwing the ball or swinging the racquet.

Scapular stabilization and rotator cuff strength and flexibility are critical components of injury prevention. The scapular stabilizer muscles maintain the position of the scapula against the spine. If these muscles are weak or unbalanced, the scapula will not be stable throughout glenohumeral motion. Consequently, the humeral head may not stay centered in the glenoid cavity. Stress and laxity on the supporting rotator cuff muscles and glenohumeral ligaments will result.

Scapation is the ability of the scapula to elevate one degree for every two degrees that the humerus abducts beyond 30 degrees. Disruption of this coordinated motion, as above, will limit the ability of the rotator cuff to maintain placement of the humeral head in the glenoid.

Physicians should emphasize to young athletes and their parents the importance of mastering good technique before increasing the frequency, intensity, or duration of a sports activity.

### Level of Fitness

Preseason conditioning for general aerobic and anaerobic fitness and proper nutrition and hydration minimize the adverse effects of muscle fatigue, which leads to altered biomechanics or poor form and focal injuries. In throwing, for example, the posterior rotator cuff muscles—infraspinatus and teres minor—along with the scapular stabilizers, play a major role in decelerating the arm

after the ball is released. When fatigued, players tend to drop their elbow or otherwise change their throwing motion to maintain a high ball velocity. This strains the smaller cuff muscles, which are compensating for the altered follow through.

Children and adolescents should stay fit year round and incorporate fitness exercises into their training routines, rather than focus exclusively on developing skills specific to a sport. Routines should build strength, endurance, and flexibility.

#### Muscular strength and endurance

Most athletes develop their deltoids and pectoral muscles, trying to achieve maximal strength and muscle hypertrophy—and to look good—resulting in overdeveloped anterior chest and shoulder muscles relative to the posterior shoulder and rotator cuff. Their time would be better spent strengthening the rotator cuff by using a lower weight resistance and doing more repetitions. (Muscles develop specifically to task. Bench pressing, for example, has little effect on throw or serve velocity.) In addition, athletes should strengthen the trapezius, rhomboids, and latissimus dorsi, which stabilize the scapula. Proper throwing motion uses muscles in the legs, hips, and trunk, so these need to be strengthened and developed as well.

#### Flexibility

Many athletes who use an overhead motion, especially swimmers, develop tightness in the posterior shoulder and laxity in the anterior shoulder. Those with generalized ligamentous laxity may have increased laxity at the glenohumeral joint, leading to subluxation or dislocations. Screening for flexibility/laxity and correction of imbalance are instrumental in preventing and treating overuse injuries. Shoulder exercises to strengthen the rotator cuff and the pectoralis and deltoid muscles can help stabilize the shoulder and lessen the risk of subluxation.

#### Maturational level

Open growth plates put the skeletally immature athlete at risk at the shoulder, elbow, and wrist. The overhead phase of throwing places a traction stress on the proximal humeral physis and can result in "Little Leaguer's shoulder," an osteochondrosis of the proximal humeral epiphysis characterized by widening of the physis.

Table

*Factors contributing to overuse injuries*

| Intrinsic Factors | Extrinsic Factors |
|---|---|
| Biomechanics | Environment |
| Level of fitness | Athletic equipment |
| Muscle strength and endurance | Improper training |
| Flexibility | Coaching |
| Maturational level | Parents |

During the throwing motion, a traction force is exerted medially on the ulnar humeral growth centers, and a compressive force is generated at the radial-capitellar junction. Traction apophysitis ("Little Leaguer's elbow") can occur medially, while excessive compressive forces can cause an osteochondritis dissecans lesion to develop laterally. The weight bearing required of the upper extremities in gymnastics can result in osteochondritis dissecans of the capitellum and a stress reaction at the distal radial physis. The latter, known as "gymnast's wrist," can result in premature closure of the radial physis and relative ulnar overgrowth, i.e., positive ulnar variance.

In addition, prepubertal athletes have lower heat tolerance, cardiac output, and response to aerobic and anaerobic training than adults. Training activities need to match each child's physical growth, development, and maturation.

## *Extrinsic Factors*

#### Environment

In cold weather, warming up properly and keeping the extremity warm during rest periods are essential to injury prevention. In hot weather, the athlete must remain hydrated; dehydration compromises muscle function and performance and can result in heat-related illness such as heat exhaustion or even heat stroke. Child athletes may need to be reminded to drink plenty of water before they feel thirsty or drink a diluted sugar and electrolyte solution during prolonged exertion.

#### Athletic equipment

The right sports equipment and its proper use can prevent overuse injuries. Safety equipment, such as helmets and pads, is essential but not the only consideration.

Equipment needs to fit the sport and the child. The proper weight and hand grip size of a racquet, for example, are critical in preventing overuse injuries in racquet sports. Sports shoes should fit and be replaced when they are worn and no longer offer protection.

Equipment may need to be maintained at regular intervals. Gymnastics equipment should be securely tensioned, and playing surfaces should be in good condition.

Equipment should be used appropriately. When a kickboard is used, for example, placing the hands over the top of the kickboard results in relatively more internal rotation and risk for subacromial impingement than placing the hands along the sides, which results in more external rotation at the shoulder.

#### Improper training

Improper training can tip the scales toward injury in an athlete who may have other risk factors for overuse but is relatively injury-free. Athletes of all ages have a tendency to do too much too soon. They often have not worked on conditioning during the off-season and, in the excitement to progress quickly, overextend themselves and experience an overuse injury. Athletes should take advantage of the off-season to build a strong aerobic and strength base and work on flexibility.

More and more child athletes

play one sport year round. But the daily repetition required to perfect a single sport too often leads to injuries. Children should be encouraged to develop fitness and motor skills by experimenting with a variety of activities rather than specializing too soon.

Organized youth baseball has established throwing limits based on maturity level. However, this does not prevent parents from enrolling their child in more than one league or allowing additional throwing outside of games and practice. These parents may unwittingly be putting their child at risk for an overuse injury.

### Coaches and parents

For children, good coaching ensures proper technique and accentuates general fitness. In throwing and racquet sports, coaches need to teach proper mechanics to prevent overuse injuries. In throwing, they need to focus on stance and foot and arm/hand placement during the throwing cycle. In racquet sports, they need to focus on serving and return stroke technique. In swimming, appropriate hand entry and follow through are essential before increasing distance and intensity. Although technique can vary noticeably from athlete to athlete, an unusual motion may signal fatigue or the athlete's unreadiness for the task.

Perhaps most important, parents and coaches should know what's appropriate for a child, given his or her psychological and motor development. Sports psychologist Ranier Martens, in "Coaching Young Athletes" (Human Kinetics Publishers, 1981), recommends that fun and basic skills be emphasized with 6- to 10-year-olds; versatility, proper training techniques, and a tolerance for increased training with 11- to 14-year-olds; and more specialized training, adult-like training levels, weight training, and extensive competition with athletes 15 and older.

The American College of Sports Medicine estimates that 50% of overuse injuries in children and adolescents are preventable. Clearly, adults who work with young athletes have a responsibility to help keep kids safe. They need to consider individual needs over team needs; provide supportive, age-appropriate, and fun opportunities for play; and emphasize enjoyment over winning. And parents, physicians, and coaches should be attuned to the signs of stress—playing under pressure makes athletes of all ages more susceptible to injury. MM

*Pediatrician Andrew Thomas sees pediatric sports medicine patients at Children's Hospital and Clinics–St. Paul and at HealthPartners' Maplewood Clinic. Pediatrician George Biltz specializes in pediatric sports medicine at Children's and at HealthPartners' Como Clinic.*

## *Suggested Reading*

DiFiori JP. Overuse injuries in children and adolescents. The Physician and Sportsmedicine 1999;27(1): 75-89.

Koehler SM, Thorson DC. Swimmer's shoulder—targeting treatment. The Physician and Sportsmedicine 1996;24(11):39-50.

Hergenroeder AC. Prevention of sports injuries. Pediatrics 1998 June;101(6):1057-63.

Garrick JG, Webb DR. Sports injuries—diagnosis and management, 2nd ed. Philadelphia: W.B. Saunders Co., 1999.

Reider B. Sportsmedicine—the school-age athlete, 2nd ed. Philadelphia: W.B. Saunders Co., 1996.

Metcalf TS, Bernhardt DT. Evaluating and managing shoulder injuries in young athletes. Contemp Pediatr 1996 Dec;13(12):94-113.

LOOKING FOR LOCUM TENENS?

LOOK FOR THE FRIENDLY DOCTOR



Whitesell
Medical Locums, Ltd.

Benefits for the Hospital/Clinic:
- Highly qualified physicians that are B.E./B.C.
- Fill your positions during illness, vacation and understaffing.
- Prevent loss of revenue.
- We handle all administrative details.
- Competitive rates

Benefits for the Physician:
- Experience a complete range of practice styles.
- Fully paid malpractice insurance
- Explore options or new services before making permanent decisions.
- A chance for senior physicians who no longer desire the responsibility of running a practice to stay clinically active.

Metro 763-682-5906
Toll Free 800-876-7171
Fax 763-684-0243
Web www.mnlocums.com

**Blaine Medical Center**

is seeking BC/BE Family Practitioner to join four Family Practitioners in a growing practice located in northern tier suburb of the Twin Cities.

Excellent salary and benefit package. Shareholder potential after one year.

Blaine Medical Center is affiliated with Multicare Associates, an independent physician owned practice with locations in Blaine, Fridley, and Roseville.

CONTACT:
**Steve Bentz, M.D. at 612-785-8544 or Jeannine Schlottman at 612-785-3338.**

www.multicare-assoc.com



# TRY OPERATING WITH THESE INSTRUMENTS FOR A CHANGE.

Take a break from your routine. Learn to jump out of an airplane in airborne school. Survive Field Survival Training with a Special Forces unit. Or put your skills and endurance to the test in a Combat Casualty Care Course.

The Army Reserve can take you abroad. And to the forefront of medicine, where you'll experience the kinds of training and education environments that only the Reserve can offer.

Your commitment? Sixteen hours a month. Fourteen days a year. Less, in some cases, should your civilian practice demand it.

Find out more about how we operate. And in exchange for your skills, live the adventure of your life.

**ARMY RESERVE MEDICINE. BE ALL YOU CAN BE.**

# Diagnosing and Treating ADHD in Children

David C. Agerter, M.D., and Norman H. Rasmussen, Ed.D., L.P.

ABSTRACT

**In the absence of a definitive diagnostic test for attention-deficit/hyperactivity disorder, physicians should use the DSM-IV, various standardized assessment instruments, and data from parents, teachers, and others to guide them in making an accurate assessment of children suspected of having the disorder. Treatment frequently includes drugs and behavioral therapies, with positive results.**

Attention-deficit/hyperactivity disorder (ADHD), an affliction characterized by short attention span and impulsivity, is the most common pediatric psychiatric disorder that physicians in the United States encounter. At least 3% to 5% of school-aged children may have this condition.[1]

Over the years, ADHD has been referred to by various names, including minimal brain dysfunction, minimal cerebral dysfunction, the "all-boy" syndrome, dyslexia, and neurosis. It is the diagnosis given to children, adolescents, and adults who exhibit a cluster of maladaptive behavioral characteristics as specified in the Diagnostic and Statistical Manual of Mental Disorders[2] (see Table 1).

More recently, the American Academy of Pediatrics has released new recommendations for evaluating school-age children for attention-deficit/hyperactivity disorder. The guidelines are designed for primary care physicians diagnosing ADHD in children aged 6 to 12[3] (see Table 2).

The central feature of ADHD is a persistent pattern of inattention and/or hyperactivity-impulsivity that is more frequent and severe than that typically observed in other individuals at a comparable level of development. To support a diagnosis of ADHD, symptoms should have persisted for at least six months and caused clinically significant problems for the child in two or more settings.[1]

Although its exact cause is unknown, ADHD is usually acquired genetically through a multifactorial inheritance pattern. Monozygotic twins show a concordance as high as 51%; dizygotic twins, 33%. Family history may reveal affected relatives in 30% to 50% of cases. Males show a higher incidence of this disorder than females, at a rate ranging from 3:1 to 9:1 in certain studies.[4]

Researchers generally agree that the disorder represents a disturbance in brain functioning. Imaging studies over the past decade have pointed to the prefrontal cortex, part of the cerebellum, and areas of the basal ganglia as regions that might malfunction in patients with ADHD.[4]

## *Assessment*

Initial assessment of a patient suspected of having ADHD centers on appropriate history, including family history. A medical examination to rule out an underlying organic problem is essential. The differential diagnosis includes ruling out seizure disorders, sensory deficit, emotional disorders, fetal alcohol syndrome, thyroid disorders, blood poisoning, and chronic illnesses. Most complications requiring medical attention during pregnancy, labor, and delivery or immediately afterward in a hospital nursery do not lead to learning and attention disabilities later in life.[1,5-7]

Although no single assessment tool can conclusively establish a diagnosis of ADHD in a patient who displays core symptoms, physicians can use various standardized instruments to make the appropriate diagnosis. It is important to gather and evaluate information from multiple sources (e.g., parents and teachers). Parent and teacher use of both general and ADHD-specific parent and teacher rating scales is recommended. Commonly used instruments for this purpose are the Conners Rating Scale (CRS) and the Achenbach Child Behavior Checklist (CBCL). Both behavior rating scales, which are available in parent and teacher versions, are an efficient means for gathering information and making normative

Table 1

*DMS-IV Criteria for ADHD*

**A.** Either (1) or (2):

**(1)** six (or more) of the following symptoms of inattention have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

**Inattention**

(a) often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities

(b) often has difficulty sustaining attention in tasks or play activities

(c) often does not seem to listen when spoken to directly

(d) often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions)

(e) often has difficulty organizing tasks and activities

(f) often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)

(g) often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)

(h) is often easily distracted by extraneous stimuli

(i) is often forgetful in daily activities

**(2)** six (or more) of the following symptoms of hyperactivity-impulsivity have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

**Hyperactivity**

(a) often fidgets with hands or feet or squirms in seat

(b) often leaves seat in classroom or in other situations in which remaining seated is expected

(c) often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)

(d) often has difficulty playing or engaging in leisure activities quietly

(e) is often "on the go" or often acts as if "driven by a motor"

(f) often talks excessively

**Impulsivity**

(g) often blurts out answers before questions have been completed

(h) often has difficulty awaiting turn

(i) often interrupts or intrudes on others (e.g., butts into conversations or games)

**B.** Some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age 7 years

comparisons. The CBCL assesses anxiety/depression, aggression/noncompliance, social functioning, and unusual/atypical behaviors as well as characteristics of ADHD, while the CRS focuses on behaviors associated with ADHD.[8-10]

In almost all ADHD patients the physical examination will be normal. However, neural developmental, vision, and hearing screens should be emphasized. Laboratory tests should be used only when indicated by the history and physical examination. Because comorbidity is seen in as many as 30% of patients with ADHD, it is often important to conduct psychometric tests to rule out co-existing conditions such as learning disability, anxiety disorder, and depression.

## *Treatment*

The treatment of ADHD is often multifaceted and may include drugs, behavioral modification, or alternative therapies. There is a growing concern in our country about the increased use of psychotropic medications for children; up to 80% of children with ADHD respond to stimulant medication.[11,12] Methylphenidate, or Ritalin, which has a rapid onset of action with few side effects, is the most commonly used medication. Others in common use are Dexedrine and Adderall; SSRIs also have generated interest as a treatment for this disorder.

Recent publications indicate that stimulant medications show efficacy and safety in studies conducted for at least 24 months.[11,12] Because of the risk of hepatic failure, Cylert should no longer be considered a first-line medication for the treatment of ADHD. In certain cases, combination drug therapy may prove to be the most beneficial.[13]

The most common side effects seen with psychostimulant medications are appetite suppression and insomnia. On occasion, patients may experience abdominal pain, irritability, weight loss, and headache when they first use the medication. Tics and Tourette's syndrome are rare side effects.

A panel of ADHD experts emphasized that ADHD individuals rarely abuse psychostimulant medication; such abuse is primarily by non-ADHD individuals who abuse multiple medications.[14] Another important point for physicians, parents, and school personnel to remember is that appropriately diagnosed children treated with recommended doses of stimulant medication do not go on to abuse these or other drugs (see Table 3).

Behavior modification, which was first applied systematically to childhood behavioral problems such as ADHD in the 1970s, is often an effective treatment for ADHD today. Behavioral treatments have traditionally been divided into three classes: direct contingency management, clinical behavior therapy, and cognitive-behavioral procedures. Behavior modification or behavior therapy procedures, particularly those involving direct contingency management procedures such as token reinforcement programs, have provided clear benefits for patients with ADHD. Behavioral interventions are generally more effective when combined with pharmacologic treatment.[8]

Alternative treatments for ADHD include special diets, elimination diets (especially of sugar or caffeine), megavitamin therapy, zinc supplementation, herbal medications, and EEG biofeedback. Although few of these treatments have been adequately validated, it is likely that we will continue to hear about alternative approaches to treating ADHD.[15]

Helpful strategies for students with ADHD include using a daily assignment notebook and organizational flow charts of specific colors, working in a quiet space, and being allowed additional time for taking examinations. Teachers can help by monitoring the student's work, issuing daily report cards, and being flexible, patient, and consistent. Teachers should also regularly provide positive feedback and be very clear and specific with their expectations. Outside school and medical settings, the Children & Adults with Attention Deficit Disorders (CH.A.D.D.) organization can be of great benefit to parents and families who have a child with ADHD.[1]

In summary, while no specific laboratory test is available for diagnosing ADHD, there are several assessment tools that physicians can use. Most important is the patient's history, which should be obtained from several sources. It is also important to screen for co-existing conditions, such as learning disabilities, oppositional behavior, or depression, which occur in up to 30% of individuals with ADHD. A team approach to treating patients with ADHD, involving parents, teachers, health care providers, and others, can be highly effective in helping patients lead productive lives. ⇨

Table 2

*AAP Releases New Guidelines for Diagnosis of ADHD*[3]

1. ADHD evaluations should be initiated by the primary care clinician for children who show signs of school difficulties, academic underachievement, troublesome relationships with teachers, family members and peers, and other behavioral problems. Questions to parents, either directly or through a pre-visit questionnaire, regarding school and behavioral issues may help alert physicians to possible ADHD.

2. In diagnosing ADHD, physicians should use DSM-IV criteria developed by the American Psychiatric Association. These guidelines require that ADHD symptoms be present in two or more of a child's settings, and that the symptoms adversely affect the child's academic or social functioning for at least six months.

3. The assessment of ADHD should include information obtained directly from parents or caregivers, as well as a classroom teacher or other school professional, regarding the core symptoms of ADHD in various settings, the age of onset, duration of symptoms, and degree of functional impairment.

4. Evaluation of a child with ADHD should also include assessment for co-existing conditions: learning and language problems, aggression, disruptive behavior, depression, or anxiety. As many as one-third of children diagnosed with ADHD also have a co-existing condition.

Table 3

*Stimulant Medication–Points to Remember*

**A. For Physicians**

1. Know local regulations for the prescription of Schedule II medications.
2. Carefully diagnose and document evaluations and different diagnoses.
3. Take and document any history of substance abuse in patients, their siblings, and their parents.
4. Inform the family of the diversion potential and instruct families on the careful storage of all medications.
5. Be alert for early prescription renewals.
6. Be alert for "scams" in which individuals see multiple physicians.
7. Do not prescribe without seeing the patient.

**B. For Patients**

1. Do not leave stimulants in accessible places.
2. Monitor medication administration carefully if any suspicion of misuse exists for the ADHD child.
3. Never send supplies of medication to school with any child. Medication should be hand delivered to school personnel by parents.
4. Talk to children about the penalties for selling or giving medication to others.

**C. For Schools**

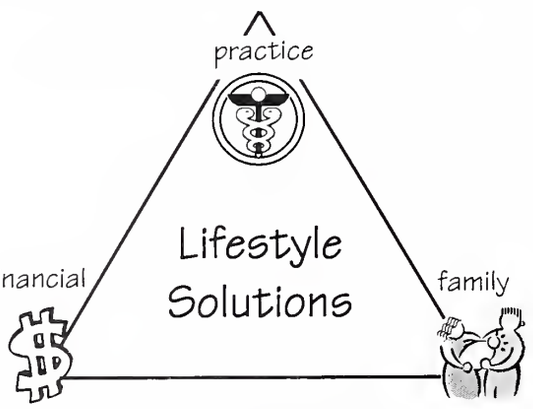
1. Establish a clear-cut policy for administration and self-administration of medication by students in school.
2. Store medications in a locked place with limited access. Document and keep accurate records.

*David Agerter is chair of the Department of Family Medicine at the Mayo Clinic. Norman Rasmussen is a consultant in the Mayo Clinic's Department of Psychiatry and Psychology and the Department of Family Medicine.*

## REFERENCES

1. Taylor MA. Attention-deficit hyperactivity disorder on the frontlines: management in the primary care office. Compr Ther 1999; 25(6-7):313-25.
2. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. DSM-IV. Washington, DC: American Psychiatric Association, 1994.
3. The American Academy of Pediatrics. AAP releases new guidelines for diagnosis of ADHD. Am Acad Ped, May 2000; http://aap.org/advocacy/releases/mayadhd.htm.
4. Barkley RA. Attention-deficit hyperactivity disorder. Sci Am 1998;279(3):67-71.
5. Ciaranello RD. Attention deficit-hyperactivity disorder and resistance to thyroid hormone—a new idea? N Engl J Med, 1993;328(14):1038-9.
6. Hauser P, Zametkin AJ, Martinez P, et al. Attention-deficit hyperactivity disorder in people with generalized resistance to thyroid hormone. N Engl J Med, 1993; 328(14):997-1001.
7. Pliszka S. Attention-deficit hyperactivity disorder: a clinical review. Am Fam Pract 1991;43:4.
8. Hinshaw SP. Attention deficits and hyperactivity in children. Thousand Oaks, CA: SAGE Publications, Volume 29, 1994.
9. Conners CK. Conners Rating Scale Manual. Toronto: Multi-Health Systems, 1989.
10. Achenbach TM. Manual for the Child Behavior Checklist/4-18 and 1991 Profile. Burlington, VT: University of Vermont Department of Psychiatry, 1991.
11. Zito JM, Safer DJ, dosReis S, Gardner JF, Boles M, Lynch F. Trends in the prescribing of psychotropic medications to preschoolers. JAMA 2000;283(8):1025-30.
12.Greenhill L, Halperin J, Abikoff H. Stimulant medications. J Am Acad Child Adolesc Psychiatry 1999;38(5):503-12.
13. Goldman LS, Genel M, Bezman RJ, Slanetz PJ. Diagnosis and treatment of attention-deficit/hyperactivity disorder in children and adolescents. JAMA 1998; 279(14):1100-7.
14. Zametkin A. ADHD, the DEA, and you. ADHD Report 1997;5:5-7.
15. Arnold LE. Treatment alternatives for attention-deficit/hyperactivity disorder (ADHD). J Attention Disorders 1999;3(1): 30-48.

P R O V I D I N G




SOLUTIONS

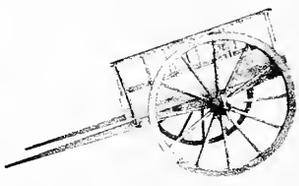
• Emergency Medicine • Locum Tenens

ACUTE CARE, INC.

For more information, please call
800.729.7813 or 515.964.2772
e-mail address: jeffw@acutecare.com
home page: http://www.acutecare.com

BC/BE FP's
GO
WEST...
CLAIM YOUR FUTURE...

- Independent Practice
- Physician Owned Clinic
- Great Compensation
- Great Benefits



Montevideo CLINIC, P.A.

EXPLORE THE POSSIBILITIES.
www.MontevideoMedical.com

# Confused about purchasing or leasing your next vehicle?



# Let us point you in the right direction with group purchasing.

- Lease or purchase all makes and models of new foreign and domestic cars and trucks.
- Fleet pricing verses retail pricing
- All rebates and special finance programs passed on to the buyer to reduce the overall cost.
- Will provided lease quotes from the best multiple lease sources including the manufacturer's lease program
- One stop vehicle shopping by phone, fax or web page < www.mnmed.org/mmbr >
- Take advantage of over 30 years of experience in the industry and experience working with medical professionals and their employees



## A Vehicle Buying and Leasing Program With Special Benefits

Remember, whether you purchase or lease, MMBR Motor Services and Creative Leasing, Inc. will help you get the most vehicle at the best price. We'll even help you sell your old auto.

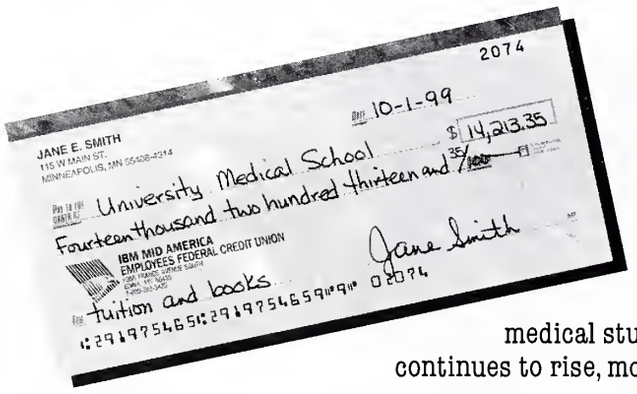
Use your money wisely. For personal attention and lease or purchase information on any vehicle, call **612/623-2860**, or toll-free **800/298-MMBR**.

MMBR

Minnesota Medical Business Resources
Owned By MMA & HMS

MMBR Motor Services is a service of Minnesota Medical Business Resources, a physician-owned corporation of your medical association.

# Sometimes, the hardest part of medical school has nothing to do with gross anatomy or board exams.




Wondering how to pay tuition shouldn't be a medical student's biggest worry. But as the cost of medical education continues to rise, more and more students have a hard time making ends meet.

## They need your help.

For over 40 years, medical students have relied on the Minnesota Physicians Foundation (MPF) to help them become the next generation of physicians. MPF provides low-interest loans and scholarships to Minnesota's medical students.

The future of medicine depends on today's medical students. And, they depend on you.

Contribute to the Minnesota Physicians Foundation.
For more information, please call 612/378-1875 or 800/DIAL MMA.

MPF
MINNESOTA PHYSICIANS FOUNDATION
A PHYSICIAN-SUPPORTED FOUNDATION OF
THE MINNESOTA MEDICAL ASSOCIATION

*A tradition of giving, a lifetime of commitment*

## Chief Medical Officer

PreferredOne, a leading Minneapolis-based managed care organization serving the Upper Midwest and operating HMO, TPA, and PPO products, is seeking a Chief Medical Officer to lead the development of the medical management and quality management functions in a consumer-driven environment. **Requirements:** Board certification with a minimum of five years clinical practice experience, five-plus years progressive management experience in a health insurance/managed care entity, excellent communication, and leadership skills. **Compensation:** Competitive base salary, bonus potential, and full benefit package.

Please send cover letter and resume to:
Nancy Hayes, Human Resources
PreferredOne
6105 Golden Hills Drive,
Minneapolis, MN 55416
or email: nhayes@preferredone.com

MULTICARE ASSOCIATES OF THE TWIN CITIES

Multicare Associates of the Twin Cities, a multispecialty/multi-location clinic, located in the northern suburbs of Minneapolis/St. Paul, has available positions for BC/BE physicians in the following departments:

**Family Practice**
**Internal Medicine**
**OB/GYN**

Excellent salary/benefits package includes paid insurance, flexible benefits plan, 401K, profit sharing, continuing medical education. Shareholder status potential after one year.

Contact Jeannine Schlottman
Administrator
7675 Madison St. NE
Fridley, MN 55432
763/785-3338
www.multicare-assoc.com

## Physician Employment Opportunities Available at WINONA CLINIC, LTD.

**Internal Medicine**
*with concentrated area of study in Cardiology, Gastroenterology, or Neurology*
(position available in 2001)

**Orthopedic Surgery**
(position currently available)

**Pediatrics**
(position available in 2001)

Our staff of 30+ medical providers is looking forward to welcoming you, as you begin your practice at this thriving, independent, physician-owned, multi-specialty clinic, located in a family-oriented community situated along the Mississippi River in the beautiful bluff country of southeastern MN.

*For additional information, contact:*
**Administrator**
**Winona Clinic, Ltd.**
**420 East Sarnia Street**
**Winona, MN 55887**
**Phone: 507-457-7722**
**Fax: 507-457-7672**

# Diagnosing Childhood Attention-Deficit/Hyperactivity Disorder

## *Do Family Practitioners and Pediatricians Make the Same Call?*

Bruce Evink, M.S. IV, M.P.T., Byron J. Crouse, M.D., and Barbara A. Elliott, Ph.D.

ABSTRACT

**Background:** The purpose of this study was to determine whether—and if so, how—primary care physicians in Minnesota differ in diagnosing and treating childhood ADHD.

**Methods:** A questionnaire was mailed to 200 family physicians (100 urban; 100 rural) and 100 pediatricians (60 urban; 40 rural). The questionnaire asked about assessment, diagnosis, and treatment strategies physicians would use in response to three patient vignettes.

**Results:** While all physicians in both specialities reported similar differential diagnoses, pediatricians used more special tests and assessment scales than family physicians ($p<0.05$). More family physicians referred patients for further evaluation ($p<0.05$). Eighty-nine percent of pediatricians used DSM-IV criteria compared with 37% of family physicians ($p<0.001$). Parents (98%) and teachers (82%) were usually involved in management planning, and methylphenidate (Ritalin) was the most commonly prescribed drug (87%).

**Conclusion:** Regardless of specialty, size of community, or distance from mental health services, physicians in this study did not differ in the diagnosis or treatment of ADHD in response to hypothetical cases. Pediatricians reported using DSM-IV criteria in their practices when making diagnoses more often than family physicians.

Attention-deficit/hyperactivity disorder (ADHD) is the most commonly diagnosed bio-behavioral problem among today's youth.[1] Community studies have shown prevalences ranging from 1.7% to 16% depending on the population and diagnostic criteria.[2] The most generally accepted prevalence is 5% to 10%; the ratio of males to females is between 4:1 and 6:1.[3] In the past decade, this attention-deficit/hyperactivity disorder and its associated medical treatment have become the subject of popular and professional controversy.

At the heart of the ADHD controversy is whether the disorder is being assessed and diagnosed appropriately. A diagnosis of ADHD often carries a stigma that can affect a person's entire life, influencing how others view the person as well as self-perception. Since there is no specific diagnostic test for ADHD, assessment and diagnostic procedures can vary across health care providers. The primary diagnostic guide for ADHD is the Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV), which divides the disorder into two subtypes: inattentive and hyperactive/impulsive. Each subtype has nine characteristic symptoms; at least six of the nine characteristics must be present in an individual to diagnose a particular subtype. A person exhibiting both subtypes is said to have a "combined type."[4]

Although the DSM-IV makes diagnosing ADHD appear to be an unambiguous process, the interpretation of the criteria is subjective. In addition, symptoms of ADHD can vary depending on the setting and observers. For example, a child may display no symptoms in the physician's office but classic symptoms at home or school. Also, reports from parents and teachers may not give an accurate picture. As a further diagnostic challenge, the criteria in DSM-IV are broader than in the previous edition of the manual, DSM-III-R. More children now appear to be affected, at times up to 57% more using DSM-IV criteria compared with DSM-III criteria in similar populations.[2,5,6]

Individuals making a case for the overdiagnosis of ADHD, another point of debate, argue that the DSM-IV requires only simple recognition of certain patterns of inattention, hyperactivity, and impulsivity characteristics. Because these behaviors can have many different causes, however, simple recognition is often not enough.[3] Further diagnostic challenges include differentiating ADHD from other disorders and withstanding pressures from parents and teachers seeking medication to modify the behavior of their normal, but difficult to manage, children.[3]

A second facet of the controversy regarding ADHD focuses on how a child should be managed after diagnosis, especially with respect to medication, which is often a central aspect of treatment. The medication most often used is the psychostimulant methylphenidate (Ritalin). This controversy partly stems from lack of information about the long-term effects of psychostimulants.[1] In many cases, a drug holiday and/or placebo trial is advised as part of a long-term stimulant treatment course to reas-

Table 1

*ADHD Survey Vignettes*

**Vignette #1**

S.N. is a 10-year-old female who presents with the parental complaint that she is hyperactive. The parents state that their daughter does not listen to them, is always fidgeting and squirming, moves from activity to activity with little time spent at any one activity, and talks all day long. They are unable to get her to sit still and hope that you can help them. They have heard good things about Ritalin and want to see if it could help control these behaviors in their daughter.

The report from the child's schoolteacher shows no significant problems in the classroom. She is on time with her homework, participates appropriately in classroom discussions, and is able to sit without squirming at her desk. Overall, she is functioning well in the classroom.

The physical exam is unremarkable and the patient is somewhat "antsy" during the exam. Preliminary psychological testing and computer testing come back normal. The parents continue to request a medication trial to help their daughter's hyperactivity.

**Vignette #2**

T.B. is a 10-year-old male who presents to your office with his grandmother (custodial guardian) because of "difficulty concentrating in school." School has been progressively difficult for T.B. and his overall school performance is progressively worsening. He has a difficult time understanding details, sustaining attention, and following through with assignments. In addition, he is often forgetful and is easily distracted. The school psychologist diagnosed T.B. two years ago with a general learning disability, and he has received special services at school since then. T.B. does not like school, but does enjoy playing hockey and soccer. You have known T.B. since birth; his parents are not able to raise T.B. His mother has schizophrenia, and his father is currently in prison and has been diagnosed with both a learning disability and alcoholism in the past.

**Vignette #3**

J.C. is an 8-year-old male who presents with his parents who are concerned about attention problems. Over the last one and a half years, they have noticed a number of behaviors that seem to be getting worse. At family meals, he squirms constantly and often is in and out of his chair. He chatters almost all day long, blurts out answers to questions before contemplating the question, and interrupts other people's conversation often. He also has difficulty following instructions and taking turns during games, and just does not seem to listen well. In addition, he often has many unfinished projects going on at one time as he is distracted from a project before he completes it. The parents have also brought a written report from his teacher about J.C. In it she writes that he does not sit well, blurts out answers out of turn, does not follow directions well, and does not stay on task especially when asked to work independently. His teacher feels that his classroom performance is not matching his abilities. J.C.'s parents also report that J.C.'s uncle and cousin have attention problems. J.C.'s physical exam and review of systems are within normal limits, but he is moving around your entire exam room during the exam.

sess the efficacy of the medication.[7]

It is widely agreed that medical management of ADHD by itself is not enough. Drug therapy must be augmented with nonmedicinal approaches, including parent education, parent management training, classroom environmental manipulations, contingency management, daily report cards from teachers, individual psychotherapy, and social skills and impulse control training.[2]

Given the knotty issues surrounding ADHD diagnosis and treatment, this study sought to answer the following questions: To what extent does the process for diagnosing childhood ADHD vary among primary care physicians in Minnesota? Do pediatricians and family practitioners differ in how they assess, diagnose, and/or initially treat ADHD? Does the practice setting—rural vs. urban—affect the diagnostic process? Does a physician's proximity to mental health services influence the diagnosis and/or treatment of ADHD?

## *Methods*

The data for this study were gathered via questionnaires sent by mail to selected primary care physicians in Minnesota. Samples of physicians in four categories (rural pediatrics, urban pediatrics, rural family medicine, and urban family medicine) were obtained from the Minnesota chapter of the American Academy of Pediatrics and the Minnesota Academy of Family Physicians. Physicians classified as urban practiced in the seven-county metro area surrounding Minneapolis and St. Paul, Duluth, Rochester, St. Cloud, or Moorhead. Questionnaires were mailed to a total of 300 randomly selected physicians: 100 urban family physicians, 100 rural family physicians, 60 urban pediatricians, and 40 rural pediatricians. A second mailing of identical questionnaires was sent three weeks later to physicians who had not responded to the first mailing.

The questionnaire asked for demographic information about the physician's practice and patient population and included questions about assessment, diagnosis, and initial treatment strategies to be answered in response to three patient vignettes (see Table 1). To ensure content validity, the vignettes were reviewed by a physician who runs an ADHD referral clinic in a tertiary care center. Vignette 1 describes a normally active 10-year-old girl who does not meet the DSM-IV criteria for ADHD. Her parents are pushing for a medication trial. Vignette 2 depicts a more complicated case of a 10-year-old boy with significant family dysfunc-

Table 2

*Primary Diagnosis for Each Vignette (in %, N=60)*

| | Vignette #1 | | | | Vignette #2 | | Vignette #3 |
|---|---|---|---|---|---|---|---|
| | Normal Behavioral | Parent-Child Dysfunction | Behavior Problems | ADHD | Learning Disability | ADHD | ADHD |
| Family Medicine/ Pediatrics | 41/39 | 26/39 | 15/14 | 12/0 | 53/48 | 31/37 | 97/100 |
| Rural/Urban | 37/46 | 32/33 | 16/13 | 11/0 | 50/52 | 36/30 | 97/100 |
| Near/Far from Mental Health Services | 39/46 | 37/15 | 14/15 | 4/15 | 54/38 | 30/46 | 100/92 |

Table 3

*Sources for Additional Assessment Information (in %, N=60)*

| | Vignette #1 | | | | Vignette #2 | | | | Vignette #3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | None | Parent | Teacher | School Counselor | None | Parent | Teacher | School Counselor | None | Parent | Teacher | School Counselor |
| Family Medicine/ Pediatrics | 21/11 | 52/57 | 64/61 | 58/39 | 3/0 | 38/64 | 84/96 | 72/71 | 19/14 | 65/68 | 74/82 | 58/39 |
| Rural/Urban | 14/21 | 49/63 | 59/67 | 57/38 | 0/4 | 51/48 | 92/87 | 73/70 | 17/17 | 67/65 | 78/78 | 50/48 |
| Near/Far from Mental Health Services | 19/8 | 54/54 | 63/62 | 38/92 | 2/0 | 47/62 | 89/92 | 70/77 | 15/23 | 67/62 | 83/62 | 43/69 |

tion and a prior diagnosis of general learning disability. Vignette 3 represents classic ADHD (as outlined in DSM-IV) in an 8-year-old boy.

For each vignette, the physicians were asked to list the top three diagnoses on their differential diagnosis for the case. They were also asked which tests they would use for further evaluation, from whom they would seek additional information, if they would refer the patient for further evaluation, and whether they would feel pressured to make a diagnosis of ADHD. Questions about initial treatment included what medication they would first prescribe for the case (if any), use of drug holiday and placebo trials, and whom they would include in the management of the condition.

Additional questions addressed the physician's familiarity with DSM-IV criteria for ADHD and the use of these criteria when considering an ADHD diagnosis. These questions, which pertained to the physician's practice, were presented at the end of the form to avoid biasing responses to the vignettes. Responses to all questions were tallied, and the results were analyzed using chi-square and t-tests.

## Results

Seventy-five (25%) of the physicians surveyed returned their questionnaire. Nine (12%) indicated that they did not see pediatric patients and/or patients with ADHD and did not complete the questionnaire, leaving 66 surveys for analysis. Thirty-six (55%) of the responding physicians were family medicine physicians; 30 (45%) were pediatricians. Most (N=39; 59%) of the physicians practiced in a rural setting, 27 (41%) in an urban setting. The average year of medical school graduation was 1980, with year of graduation ranging from 1957 to 1995. The family medicine physicians reported that on average they considered a diagnosis of ADHD for 22 individuals annually, compared with 53 individuals annually for pediatricians.

### Diagnosis

The primary diagnosis listed in the differential diagnosis for each vignette is presented in Table 2. For the first vignette, only rural family physicians considered ADHD as the No. 1 diagnosis on their differential, although equal numbers of pediatricians and family physicians included ADHD as the No. 2 diagnosis. The physicians whose practices were nearer to mental health services included a wider variety of diagnoses than those farther away. Overall, the differential diagnoses were very similar, whether made by family physicians or pediatricians, rural or urban physicians, or physicians near (≤30 miles) mental

Table 4

*Factors in the ADHD Diagnostic Process (in %, N=60)*

| | |
|---|---|
| **Referred for further evaluation** | |
| Family medicine/pediatrics | 69/47* |
| Near/far from mental health services | 62/46 |
| **Percent of the time pressure felt to diagnose and treat ADHD** | |
| Parents | 33 |
| Teachers | 30 |
| **Familiar with DSM-IV ADHD criteria** | |
| Family medicine/pediatrics | 55/100** |
| Urban/rural | 78/74 |
| **Percent of physicians using assessment scales** | |
| Conners | 51-54 |
| Child Behavior Checklist (CBCL) | 26-30 |
| ADHD Rating Scale | 20-21 |
| ADD-H Comprehensive Teacher Rating Scale (ACTeRS) | 25-30 |
| **Utilize DSM-IV ADHD criteria** | |
| Family medicine/pediatrics | 37/89** |
| Urban/rural | 59/63 |

*p<0.05
**p<0.0005

health services or farther away (>30 miles) from such services. In all cases, each group considered a diagnosis of ADHD at a similar rate.

Physicians were also asked what additional information they would incorporate into their assessment process (see Table 3). In response to the more complicated vignettes (2 and 3), an average of 90% (vignette 2) and 80% (vignette 3) of the physicians said they would request information from the patient's schoolteacher. Again, there were no statistically significant differences between any groups.

The questionnaire also asked which, if any, standardized tests the physicians would use in diagnosing ADHD. The only significant finding was that pediatricians indicated they would use more of these special tests and assessment scales than family medicine physicians ($p<0.05$). The Conners Scale was the most commonly requested test (by 51%-54% of the physicians in the three vignettes). The Child Behavior Checklist (CBCL), ADHD Rating Scale, and the ADD-H Comprehensive Teacher Rating Scale (ACTeRS) were selected by 20% to 30% of physicians.

As shown in Table 4, family medicine physicians indicated they would refer patients for further evaluation more often than pediatricians ($p<0.05$). Physicians closer to mental health services said they would refer patients at a somewhat higher rate than those farther from these services, but the difference was not statistically significant. Referral rates did not differ by practice setting.

As also indicated in Table 4, physicians reported that pressure from parents and teachers to diagnose and treat ADHD was fairly common. Physicians reported that they feel pressure in their practices from parents an average of 33% of the time (range of 0-80%), and pressure from teachers an average of 30% of the time (range of 0-100%). Family medicine physicians reported being pressured more frequently than pediatricians (36% and 28% respectively), and urban physicians more frequently than rural physicians (38% and 29% respectively), but these differences are not statistically significant.

When physicians were asked about their own practices, a variable that clearly distinguished pediatricians from family physicians was familiarity and use of the DSM-IV criteria for ADHD diagnosis. Table 4 shows that 100% of the pediatricians in the study reported familiariy with the DSM-IV criteria compared with 55% of the family medicine physicians ($p<0.001$). The family medicine physicians who were not familiar with the DSM-IV criteria for ADHD were evenly split between rural and urban settings. When considering an ADHD diagnosis in their actual practice, most of the pediatricians (89%) reported using the DSM-IV criteria compared with 37% of the family medicine physicians ($p<0.001$). Again, there were no rural/urban differences. However, when physicians were asked to list the three classic symptoms they look for when considering a diagnosis of ADHD, they all listed symptoms consistent with DSM-IV criteria for ADHD.

## Treatment

In response to the vignettes, almost all the physicians (98%) reported involving parents in ADHD management planning (see Table 5), and most of the physicians (82%) indicated they also involve the schoolteacher. Regardless of specialty, fewer urban than rural physicians include teachers in planning.

When prescribing medications, physicians most often choose methylphenidate (Ritalin) (87%). Other drugs considered as first-line medications were dextroamphetamine (Adderall or Dexedrine), pemoline (Cylert), and tricyclic antidepressants (Table 5). The four physicians who said they would consider a medication other than Ritalin were rural physicians. Five (15%) of the family medicine physicians said they would not prescribe medication initially.

Most of the physicians (81%) indicated they would impose a drug holiday at some point in the management plan (Table 5). The length of the drug holiday varied, ranging from weekends to three months. Specialty, location, and distance to mental health services did not affect this decision.

Seventeen percent of the physicians surveyed said they would implement a placebo trial of medica-

Table 5

*Initial Treatment Plan for ADHD (in %, N=60)*

| | |
|---|---|
| **Involved in treatment plan** | |
| Parents | 98 |
| Schoolteacher | 82 |
| **Medications used** | |
| Methylphenidate | 87 |
| Dextroamphetamine | 3 |
| Pemoline | 2 |
| Tricyclic antidepressants | 2 |
| **Drug holiday** | |
| Yes | 81 |
| No | 19 |
| **Placebo trial** | |
| Family medicine/pediatrics | 6/30* |

*p<0.05

tion, a step that varied by specialty: 30% of the pediatricians would implement a placebo trial compared with 6% of the family medicine physicians ($p<0.05$).

## Discussion

There is no universally accepted protocol or single test for diagnosing ADHD. Consideration of an ADHD diagnosis often raises many emotional issues for parents and teachers because of the time and energy they have spent trying to control the child's behavior. Some parents blame themselves for the behavior and are relieved by a diagnosis of ADHD.[8] Others resist the diagnosis, fearing that it will carry a stigma.

In the vignettes presented in this study, physicians showed consistency in considering the diagnosis of ADHD. Appropriately, when the patient had complicating factors that made the diagnosis difficult, virtually 100% of the physicians indicated that they would pursue additional information. For the more straightforward cases, fewer physicians said they would seek additional assessment information from other sources. Community size, specialty area, and proximity to mental health services had little or no influence on the proposed differential diagnoses.

Despite the similarity of the differential diagnoses, the diagnostic process varied between groups. Medical specialty—family physicians vs. pediatricians—accounted for the largest differences. Family physicians used tests and reporting scales in making the diagnosis less often than their pediatric colleagues. More family physicians than pediatricians reported that they would refer their patients to another specialty. (Indeed, it is very likely that some family physicians refer their patients to pediatricians for further evaluation of ADHD symptoms.)

The data showed other, more subtle differences, too. Urban physicians reported slightly more pressure from parents to make the ADHD diagnosis than rural physicians (38% and 29%), and rural physicians sought information from schoolteachers more often than did urban physicians (92% vs. 71%). Physicians within 30 miles of mental health services tended to refer more of their patients to comprehensive mental health services than physicians farther away (62% vs. 46%). As one might expect, services that are easy to access are used more often.

One of the more striking findings was the difference between family medicine physicians and pediatricians in their familiarity with and use of the DSM-IV criteria for ADHD. The DSM-IV is widely recognized as the primary source for ADHD diagnostic criteria. Controversy concerning the use of the DSM-IV criteria for ADHD usually focuses on their subjectivity.[5] Although a large percentage of family physicians reported that they do not use the DSM-IV criteria in patient care, all the physicians listed symptoms that are part of the DSM-IV criteria for ADHD when asked to list the three classic symptoms that they look for when considering ADHD as the diagnosis.

As noted above, physicians are often subjected to considerable pressure from others when considering the diagnosis of ADHD. The DSM-IV offers a specific approach in the diagnosis of ADHD that can support the physician's clinical judgment.

Components of the initial treatment plan in response to the vignettes were also consistent across the different groups of physicians. Along with prescribing methylphenidate and implementing drug holidays and behavioral management plans, involving parents and teachers appears to be the standard of care for all groups. Placebo trials, which physicians included much less often, were used by more pediatricians than family medicine physicians (30% vs. 6%). The pediatricians are seeing more patients with ADHD in their practices and have access to treatment protocols that include placebos, factors that may partly explain why more of them reported using this option.

## Limitations

This study has several limitations. First, with a response rate of less than 30%, the results may not represent the population of primary care physicians. However, the respondents represent each group proportionally. Another question is whether a physician's responses to hypothetical patient vignettes reflect what that physician would actually do clinically. However, this method enabled comparisons of physicians' behaviors relative to identical situations. A fruitful approach for further research on ADHD diagnostic procedures would be qualitative studies observing physicians' behavior.

## Conclusion

Overall, the primary care physicians' responses to this survey indicated consistency in making an ADHD diagnosis. Whether a physician practices in a rural or urban setting, or near mental health services, made little difference in diagnosing ADHD. Nonetheless, family physicians and pediatricians showed some clear differences in their approach to making the diagnosis of ADHD. Finally, all of the physicians also used very similar treatment strategies for ADHD, suggesting that appropriate diagnostic skills and treatment plans are being used by family physicians and pediatricians in urban and rural locations regardless of proximity to mental health facilities. ⇨

*Acknowledgments*

This work was funded by a grant from the Minnesota Academy of Family Physicians Foundation and the American Academy of Family Physicians Foundation. We would like to acknowledge Kate Beattie and Jerome Kwako, M.D., for their assistance.

*Bruce Evink is a fourth-year medical student at the University of Minnesota. Byron Crouse is associate professor and chair, Department of Family Medicine, University of Minnesota-Duluth School of Medicine. Barbara Elliott is a professor in the Department of Family Medicine, University of Minnesota-Duluth School of Medicine.*

*Some of these data were presented at the Minnesota Academy of Family Physicians Research Forum XIX, April 17, 1999, in fulfillment of funding obligations.*

REFERENCES

1. National Institutes of Health. Diagnosis and treatment of attention-deficit hyperactivity disorder. NIH Consensus Statement 1998 Nov 16-8;16(2):http://odp.od.nih.gov/consensus/cons/110/110_statement.htm.
2. Goldman LS, Genel M, Bezman RJ, Slanetz PJ. Diagnosis and treatment of ADHD in children and adolescents. JAMA 1998;279:1100-7.
3. Schneider SC, Tan G. ADHD: in pursuit of diagnostic accuracy. Postgrad Med 1997;101:231-40.
4. American Psychiatric Association. Diagnostic and statistical manual of mental disorders, 4th ed. Washington, DC: American Psychiatric Association, 1994.
5. Woraich ML, Hannah JN, Pinnock TY, Baumgaertel A, Brown J. Comparison of diagnostic criteria for ADHD in a country-wide sample. J Am Acad Child Adolesc Psychiatry 1996;35(3):319-24.
6. Morgan AE, Hynd GW, Riccio CA, Hall J. Validity of DSM-IV ADHD predominantly inattentive and combined types: relationship to previous DSM diagnoses/subtype differences. J Am Acad Child Adolesc Psychiatry 1996;35(3):325-33.
7. Barbaresi WJ. Primary-care approach to the diagnosis and management of ADHD. Mayo Clinic Proc 1996;71:463-71.
8. Zametkin AJ, Ernst M. Problems in the management of attention-deficit/hyperactivity disorder. N Engl J Med 1999; 340:40-6.

**MEDICAL DIRECTOR**

Director needed for a progressive multidisciplinary medical clinic.

Great opportunity to become a medical director and regain control to practice real medicine the way doctors used to.

Start your family practice in this established, independent and growing medical clinic.

- *Located just 20 minutes S.W. of the twin cities*
- *Ideal family oriented community*
- *Work part/full time*
- *Set hours on Monday through Friday, no weekends*
- *Minimal on-call*

Don't miss this opportunity to join a progressive integrative clinic.

**If you are interested in joining our expanding health care team call Dr. David Copp or Mary Copp at (612) 492-2225 or fax your C.V. to (612) 492-6470.**

**PEDIATRICIAN**

*Opportunity in Minnesota*

We are looking for a BE/BC physician to join two current pediatricians at Albert Lea Medical Center – Mayo Health System. Albert Lea Medical Center houses a 107-bed hospital and a 48-provider multi-specialty clinic with regional clinics in southern Minnesota and northern Iowa. Located 90 miles south of Minneapolis/St. Paul and 70 miles south-west of Rochester, Albert Lea features beautiful lake and park areas and an excellent school system. Ideal candidate should be a team player, willing to share call, enjoy working closely with other multi-specialty group members and communicate well with patients and colleagues.

*Inquiries:*
Jeffrey Lotts, M.D.
Diane Clark, R.N.
404 W. Fountain St., Albert Lea, MN 56007
*web:* www.almedcenter.org *email:* dclark@mayo.edu
*phone:* (888) 999-2386 *fax:* (507) 377-4826

Albert Lea Medical Center
*Mayo Health System*

The best of both — A place to practice. A place to live.

Owatonna Clinic offers physicians local practice autonomy and access to Mayo Clinic's expertise in clinical medicine, education and research.

Opportunities to join our team are available in:

- Dermatology
- Family Medicine
- Internal Medicine
- Obstetrics and Gynecology
- Orthopedic Surgery

To learn more about our wonderful city and clinic, visit us at owtclinic.org

**Contact David Berg at 507-455-4441 or berg.david2@mayo.edu**

Owatonna Clinic
*Mayo Health System*

## 80 years and Still Growing.

*We're looking for BC/BE physicians for the following positions:*

**Internal Medicine/Family Practice**—We have multiple opportunities available in our internal medicine department at the main Clinic in Mankato, and for a family practice physician in our nearby Mapleton, MN Clinic. The Mankato Clinic is a multi-specialty group practice with 75+ providers and a service area population of over 250,000. Our scenic riverside community has big city amenities, services, shopping and restaurants all without the traffic hassles.

**Radiology**—Exceptional opportunity to join our Radiology Department. Brand new, state-of-the-art volume acquisition multi-detector, spiral CT scanner on line in March necessitates expanding this well established department. This opportunity also includes reading MRI from the region's newest open MRI. Desirable call schedule provides time to enjoy life in this scenic river valley community.

We offer a guaranteed first year salary with incentive pay plan. Our full range of benefits includes a generous retirement plan and liberal time-off policy.

**For more information call Dr. Byron C. McGregor, Medical Director at 507-389-8548 or Dennis Davito, Director Physician Recruitment, 507-389-8654 or send CV.**

Mankato Clinic
1230 East Main Street
Mankato, MN 56002-8674
FAX: 507-388-3401

## Picture your future with ACMC... We think you'll fit right in!

ACMC is a 100+ multi-specialty group providing primary and secondary care in over 23 specialties in a network of 10 clinics in Southwestern and West Central Minnesota.

ACMC offers a secure practice among a well-established and respected physician owned group with a very competitive financial and benefits package.

Positions now available for BE/BC physicians in:

Benson: *Family Practice*

Litchfield: *Family Practice*

Marshall: *Family Practice, Internal Medicine, OB/Gyn*

Redwood Falls: *Family Practice, Internal Medicine*

Willmar: *Family Practice, Internal Medicine, Oncology, Orthopaedic Surgery, Gastroenterology, Anesthesia, Urology*

Please contact:

Kari Bredberg, Physician Recruitment
(320) 231-6366 • karib@acmc.com
Affiliated Community Medical Centers
101 Willmar Avenue SW • Willmar, MN 56201
www.acmc.com

Affiliated COMMUNITY Medical Centers, P.A.



## Continuing Medical Education

**sponsored by Allina Health System**

### June 2000

**14 or 15** — **Publishing for Professional Excellence**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Phillips Eye Institute, Heilicher Auditorium

### September 2000

**1** — **Advanced Cardiac Life Support (ACLS)**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Abbott Northwestern Hospital, Minneapolis

**9** — **Retina Update 2000**
*(watch for additional information in future editions)*

**15** — **Obsessive-Compulsive Disorders (OCD) in Adolescents**
PRESENTED BY: Allina Behavioral Health
LOCATION: United Hospital, St. Paul

**18 & 19** — **Advanced Trauma Life Support (ATLS)**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: United Hospital Conference Center, St. Paul

### October 2000

**6** — **Prevention, Diagnosis and Treatment of Breast Disease**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Earle Brown Heritage Center, BrooklynCenter

**13** — **Minnesota and the Aging Driver: Your Options as a Professional**
PRESENTED BY: Allina Hospitals & Clinics, AAA, GRECC/VA Hospital, State of MN Dept. of Public Safety, and Sister Kenny Rehabilitation Services
LOCATION: Earle Brown Heritage Center, Brooklyn Center

**26 & 27** — **2000 Front Line Neurology Symposium**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: DoubleTree Hotel, by Mall of America, Bloomington

### November 2000

**3** — **Patient Educator Conference**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Abbott Northwestern Hospital, Minneapolis

**For more information contact:**
**Allina Education and Research Administration at (612) 992-2424**

ALLINA HEALTH SYSTEM

®Allina Health System

**Visit the Allina CME Calendar at http://www.allina.com**

# Are the everyday requirements of your specialty society becoming everyday emergencies?

# MSBC can help.

**MSBC offers a wide range of affordable, efficient services designed specifically to meet the administrative needs of medical societies, large or small.**



Your colleagues have honored you by electing you to serve as an officer of your society. They respect your professionalism and leadership skills. You've got the ideas and ambition it takes to make your society an integral part of your profession. However, the thought of you and your office staff taking time away from patients to manage the day-to-day activities of your society somehow takes away the thrill of what should be a very exciting time for you.

Management Services By Choice (MSBC), a program of the Minnesota Medical Association, can help. Our professional staff will work directly with you to expand, improve, or develop new programs to best serve your membership. For more information, call 612/378-1875 or 800/342-5662, or visit our Web site at www.mnmed.org/MSBC.

MSBC

MANAGEMENT SERVICES BY CHOICE

A PROGRAM SPONSORED BY THE MMA

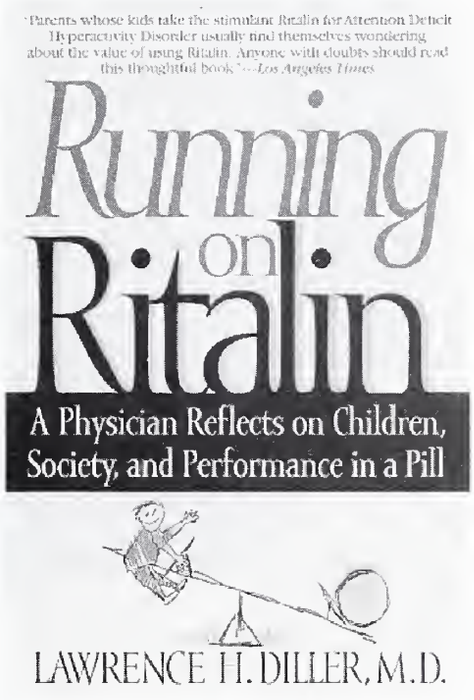
# America's Speed Ways

*Pediatrician and therapist Lawrence Diller, M.D., blames hectic lifestyles and chaotic family systems for the growing number of kids diagnosed with attention-deficit/hyperactivity disorder.*

Reviewed by Charles R. Meyer, M.D.

Americans have always liked fast. We eat fast food. We drive fast. We buy fast—and faster—computers. And we live fast. But Americans have also embraced achievement. We dream that hard work and ingenuity will be rewarded. So what is this ever-faster pursuit of the American Dream doing to us? According to Lawrence H. Diller, M.D., pediatrician and family therapist and author of "Running on Ritalin: A Physician Reflects on Children, Society, and Performance in a Pill" (Bantam Books, 1998), it may be driving Americans to pop pills so they can focus their increasingly distracted minds and enhance their performance.

Ritalin is one of the pills that Americans are popping in record numbers. Diller cites DEA statistics claiming that 13,824 kilograms of Ritalin was produced in 1997, up 700 percent from 1990—an astounding upsurge for a drug available since 1955. A recent, widely publicized *JAMA* study documented a steep rise in the use of Ritalin and other psychotropics in preschool children. The Ritalin rush in the 1990s is explained almost entirely by prescriptions written for attention-deficit/hyperactivity disorder (ADHD), a diagnosis that is experiencing its own boom. According to Diller, the number of diagnosed cases of ADHD increased from 900,000 in 1990 to 2 million in 1993. The ADHD-Ritalin epidemic is specifically American (the United States accounts for




90 percent of Ritalin prescribed worldwide), white, suburban, and upper middle class. Today, kids who talk back, get easily bored, and can't sit still get put on Ritalin. According to physician-anthropologist Melvin Konner, Tom Sawyer and Huckleberry Finn would have fit those criteria.

When he started practicing pediatric psychiatry, Diller did prescribe Ritalin. But as he saw more and more children with minor behavior problems treated with Ritalin, he began to question the wisdom of his and other physicians' use of the drug. He increasingly viewed Ritalin as a simplistic answer to complex behavioral and social problems. In "Running on Ritalin," he tells story after story of children from chaotic homes and hectic schools, struggling in school or not fulfilling their parents' expectations, who received Ritalin rather than help with a social problem or their dysfunctional environment.

Diller questions whether many of these children have any diagnosable psychiatric disorder. In his chapter entitled "Attention Deficit Disorder: In the Eye of the Beholder," Diller maps the history of ADHD's changing name, the slipperiness of its diagnostic criteria, and the monocular focus of many psychiatrists and psychologists on individual characteristics rather than on the entire family and social environment.

Diller also worries about "diagnostic creep" as the ADHD label gets applied and Ritalin gets ordered for children with milder symptoms and for adults with "impulsivity" or "difficulty concentrating." Diller points with disdain to one ADHD researcher, Joseph Biederman, who "has suggested that if a person's IQ (as a measure of potential) is higher than his level of academic performance, Ritalin is indicated." Truly a diagnostic Pandora's box.

Diller reserves his most acerbic critique for American society. He watches parents running past kids; he hears teachers calling their classrooms "madhouses"; and he bemoans a blame-focused culture that wants scapegoats or diagnoses to explain unmet expectations.

Although Diller believes ADHD

does exists, he suggests "therapy" for ADHD, clarification of the diagnostic criteria, and broadening of the therapeutic tools for addressing ADHD-like behavior.

His analysis makes a lot of sense. Although many Americans are opting for "natural," nonmedication approaches to medical problems, the quick-fix attitude is alive and thriving. A medical diagnosis with a corresponding drug treatment is as understandable as pneumonia and less threatening than a psychiatric or behavioral label that might imply something is awry in relationships or the home environment.

The frequently used anti-drug message "speed kills" is a double entendre for Ritalin and American life. Our overstimulated, 90-mph daily life may be pushing us to the reckless edge where we grasp at simple diagnoses and fast medication fixes when it is the lifestyle that needs fixing. As one of Diller's 10-year-old patients said after learning he might have a chemical imbalance, "It's not chemical imbalance, it's life imbalance." MM

*Charles Meyer is editor-in-chief of* Minnesota Medicine.


## Minnesota Opportunities

Delacore Resources, also known as *"The Minnesota Recruiter,"* has opportunities in Minnesota for the following types of physicians:

- **Dermatology**
- **Emergency Medicine**
- **Family Practice**
- **General Surgery**
- **Internal Medicine**
- **OB/GYN**
- **Orthopedic Surgery**
- **Pediatrics**
- **Psychiatry**

A detailed practice profile is available, or visit our website at **www.mnrecruiter.com**

*Contact The Minnesota Recruiter confidentially at*

**Delacore Resources**
**1-800-967-2711**
**FAX (320) 587-7252**
**delacore@hutchtel.net**






Track, trend, compare and improve your practice performance with **ManageYourPractice**™... a new online resource available to physicians and office administrators through www.ExpertPractice.com.

With **ManageYourPractice,** all you have to do is answer a few short questions each month. Based on your responses, we'll provide a dashboard and full report showing how your performance measures up to peer and national standards. We'll also provide recommendations on how to fuel growth, improve productivity and increase revenue.

To receive three free months of **ManageYourPractice**, call (800) 646-5615 or email Service@ExpertPractice.com.

Expert Practice, Inc.
3433 Broadway Street, NE
Suite 340
Minneapolis, MN 55413
(800) 646-5615

# *A Calendar of Continuing Medical Education Courses*

*Provided as a service of the MMA Committee on Accreditation and CME.* For assistance with scheduling meetings or for information on future medical meetings and CME courses, please contact the MMA office: 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; 612/378-1875. For a complete listing of our calendar, visit the MMA Web site at www.mnmed.org. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

## JUNE 2000

June 8 **Knowing the Ins & Outs of Billing, Coding, and Documenting Behavioral Health Sciences** Minnesota Medical Association in joint sponsorship with Minnesota Association of Community Mental Health Programs, Inc.; DoubleTree Hotel-Minneapolis Airport at the Mall of America, Bloomington, MN. CONTACT: Angie Finholt, Minnesota Association of Community Mental Health Programs, Inc., 1821 University Avenue West, #350-5, St. Paul, MN 55104; 651/642-1903.

June 8-10 **Practical Diagnostic Hematopathology: Non-neoplastic Hematologic Diseases with Emphasis on Red Blood Cell Disorders Conference, Honoring Virgil F. Fairbanks, M.D.** Mayo Foundation; Mayo Foundation, Rochester, MN. CONTACT: Registrar, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

June 15 **2000 Brain Injury Conference—Maximizing Outcomes: The Spectrum of Prevention** Mayo Continuing Nursing Education; Mayo Clinic, Rochester, MN. CONTACT: Mayo Continuing Nursing Education, Eisenberg S-41, 200 First Street SW, Rochester, MN 55905; 800/545-0357.

June 19-23 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

June 22-24 **Topics and Advances in Pediatrics** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

June 23-25 **Medical Updates 2000** St. Cloud Hospital; Ruttger's Sugar Lake Lodge, Grand Rapids, MN. CONTACT: Sandi Theisen, St. Cloud Hospital, CME Division of Medical Staff Services, 1406 Sixth Avenue North, St. Cloud, MN 56303; 320/251-2700, ext. 54551, or e-mail: theisens@centracare.com.

## JULY 2000

July 10-14 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

July 16-22 **Mayo Clinic Internal Medicine Certification and Recertification Board Reviews 2000** Mayo Foundation; Mayo Civic Center, Rochester, MN. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

July 28-29 **Interactive Approach to Setting Up a Lipid Clinic** Minnesota Medical Association in joint sponsorship with St. Paul Heart Clinic; DoubleTree Hotel-Minneapolis Airport at the Mall of America, Bloomington, MN. CONTACT: Patty Bowman, St. Paul Heart Clinic, 1600 St. John's Boulevard, #200, Maplewood, MN 55109; 651/747-8607.

## AUGUST 2000

Aug. 6-8 **Fifth Annual Mountain Course—Success with Failure: New Strategies for the Evaluation and Treatment of Congestive Heart Failure** Mayo Foundation; Chateau Whistler, Whistler, B.C., Canada. CONTACT: Registrars, Mayo School of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Aug. 18-19 **Inpatient Medicine: 1st Annual Midwest Regional (NAIP) Meeting** Mayo Foundation; Mayo Foundation, Rochester, MN. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Aug. 20-26 **Medical Ethics in the New Millennium** Health-East Care System with the Minnesota Guild of the Catholic Medical Association; Hotel Giotto, Assisi, Italy. CONTACT: Annette Anderson, 1700 University Avenue West, St. Paul, MN 55104; 651/232-5104.

Aug. 21-25 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

## SEPTEMBER 2000

Sept. 5 **Endorectal Ultrasonography** Division of Colon and Rectal Surgery—University of Minnesota; Midway Health Service, St. Paul, MN. CONTACT: Continuing Medical Education, University of Minnesota, Suite 107, 615 Washington, Avenue SE, Minneapolis, MN 55414; 612/626-7600, 800/776-8636 or fax 612/626-7766.

Sept. 6 **Pelvic Floor Workshop: Testing, Patient Simulation and Evaluation** Division of Colon and Rectal Surgery—University of Minnesota; Midway Health Service, St. Paul, MN. CONTACT: Continuing Medical Education, University of Minnesota, Suite 107, 615 Washington, Avenue SE, Minneapolis, MN 55414; 612/626-7600, 800/776-8636 or fax 612/626-7766.

Sept. 7-9 **Principles of Colon and Rectal Surgery: Principles and Practice 2000** Division of Colon and Rectal Surgery–University of Minnesota; Hilton, Minneapolis, MN. CONTACT: Continuing Medical Education, University of Minnesota, Suite 107, 615 Washington, Avenue SE, Minneapolis, MN 55414; 612/626-7600, 800/776-8636 or fax 612/626-7766.

Sept. 7-9 **The 2nd Mayo Vascular Symposium** Mayo Clinic, North American Chapter of the International Union on Angiology, American Venous Forum; Mayo Civic Center, Rochester, MN. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Sept. 11-15 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Sept. 22-23 **Mayo Clinic Update in Hepatology and Liver Transplantation** Mayo Foundation; Saint Paul Hotel, St. Paul, MN. CONTACT: Registrars, Mayo School of Continuing Medical Education, Mayo Clinic, 200 First Street SW, Rochester, MN 55905; 800/323-2688 or cme@mayo.edu.

Sept. 28-29 **Obstetrics and Gynecology Update** Institute for Research and Education; Naegele Auditorium, 7th Floor, Park Nicollet Clinic, 3800 Park Nicollet Boulevard, St. Louis Park, MN. CONTACT: Mary White, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 952/993-3531, e-mail: whitemj@hsmnet.com.

## OCTOBER 2000

Oct. 2-6 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Oct. 3-4 **Diabetes Conference** St. Mary's/Duluth Clinic Health System; Duluth Entertainment Convention Center, Duluth, MN. CONTACT: Catherine Koski, SMDC, Education & Research, 400 East Third Street, Duluth, MN 55805; 218/786-3854.

Oct. 7-8 **Clinical Autonomic Quantitation Workshop** Mayo Foundation; Mayo Clinic, Rochester, MN. CONTACT: Registrars, Mayo School of Continuing Medical Education, Mayo Clinic, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Oct. 12-14 **Strategies in Primary Care** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Marilyn Horstman, HealthPartners, Continuing Medical Education, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.

Oct. 13 **Dermatology Update** Institute for Research and Education; Naegele Auditorium, St. Louis Park, MN. CONTACT: Mary White, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 952/993-3531, e-mail: whitemj@hsmnet.com.

Oct. 27-28 **Thyroplasty: Theory and Practice** Minnesota Medical Association with Mayo Clinic Department of Otorhinolaryngology; Mayo Clinic, Rochester, MN. CONTACT: Barbara McLeod, Matrix Meetings, Inc., P.O. Box 1026, Rochester, MN 55905-1026; 507/288-5620.

Oct. 27-28 **Orthopedic Update** Institute for Research and Education; Radisson Hotel and Conference Center, Plymouth, MN. CONTACT: Mary White, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 952/993-3531, e-mail: whitemj@hsmnet.com.

**Emergency Medicine Opportunities**

**Emergency Practice Associates** provides quality emergency physician services. Our physicians work as independent contractors in a growth-oriented, physician-supported environment.

***full time opportunities***

| | |
|---|---|
| *GRAND RAPIDS, MN* | **Itasca Medical Center**<br>Medical Director and Staff Physician |
| *HIBBING, MN* | **University Medical Center–Mesabi**<br>Staff Physician |
| *LITTLE FALLS, MN* | **St. Gabriel's Hospital**<br>Medical Director and Staff Physician |
| *NEW ULM, MN* | **New Ulm Medical Center**<br>Medical Director and Staff Physician |

***part time opportunities***

| | |
|---|---|
| *AITKIN, MN* | **Riverwood Health Care Center** |
| *CROSBY, MN* | **Cuyuna Regional Medical Center** |
| *ST. PETER, MN* | **Community Hospital & Health Center** |

EMERGENCY PRACTICE ASSOCIATES
BOX 1260
WATERLOO, IA 50704
FAX: 319-236-3644

**Call the recruiting specialist today at 1-800-458-5003**
www.epamidwest.com

# Wouldn't you like a LOW-COST employee benefit?




**MMBR** has partnered with **IBM Mid America Employees Federal Credit Union** — one of the largest and most successful credit unions in the state — specifically for the benefit of your medical practice.

- IBM Mid America is driven by a mission of providing **high-quality service** — 98% of its members say the credit union either meets or exceeds their service expectations.*
- Some experts estimate that credit union membership can save the average American family **$400 to $500** a year.
- The credit union emphasizes **high savings rates, low loan rates,** minimal fees and convenient access through a combination of branch offices and state-of-the-art technology.

*To find out how the valuable benefit of credit union membership can be offered to your employees at **no cost** to you, call MMBR at **1-800-298-6627** or **612/623-2860.***

## Are you interested in an employee benefit that:

- Adds **real value** to your benefits package?
- Can help increase **employee retention?**
- Requires **no investment** of your administrative time?
- Is **easy to implement,** with no hassle?

* 1999 Service Quality Survey

IBM **MID AMERICA** EMPLOYEES FEDERAL CREDIT UNION

**MMBR**

MINNESOTA MEDICAL BUSINESS RESOURCES
OWNED BY MMA & HMS

**www.mnmed.org/mmbr • e-mail: mmbr@mnmed.org**

# MEDSTAT

SPECIALIZED MEDICAL TRANSPORTATION

***"A VITAL LINK BETWEEN PATIENT AND PHYSICIAN."***

**DEDICATED TO ASSISTING**

**THE MEDICAL COMMUNITY**

**IN THE PROVISION OF**

**OPTIMAL PATIENT CARE**

**AND CLIENT SERVICES.**

Much more than a courier service, MEDSTAT can meet the unique needs of the medical community. MEDSTAT's relationship with MMBR allows MMA members and their clinics to receive medical transportation rates that are generally below that of traditional transportation companies.

## MEDSTAT is a unique transportation system that can provide you with the following:

- Medical interoffice transport
  PATIENT RECORDS, FILMS, OFFICE CORRESPONDENCE, ETC.
- Laboratory specimen pick up and delivery
- Blood transport services
- Medical distribution
- Medical supply pick up and delivery
- Medical vendor/medical provider transport
- Pharmacy distribution
  RETAIL, WHOLESALE, COMMERCIAL AND INTRAVENOUS
- Home health care/patient interactive pick up and delivery
- Limited on-demand services

MEDSTAT

SPECIALIZED MEDICAL TRANSPORTATION

***MEDSTAT SYSTEMS, INC.***
5155 East River Road, Suite 407
Fridley, MN 55421
Office: 612/586-8146
Toll free: 888/234-3618
Fax: 612/586-8147
email: vitallink@earthlink.net
www.medstatsystems.com

MMBR
MINNESOTA MEDICAL BUSINESS RESOURCES
OWNED BY MMA & HMS

**Minnesota Medical Business Resources**
3433 Broadway Street NE, Suite 395
Minneapolis, MN 55413
612/623-2860
e-mail: mmbr@mnmed.org
internet: mnmed.org/mmbr

# *Physician Opportunities and Miscellaneous Listings*

*Classified rates are $2.50 a word (300-word maximum). Minimum monthly charge is $50; with box number $5 additional. Ads will not be accepted by phone. (Effective January 2000, the rates will be $2.50 a word for all new ads.)*

- Placement of ads must be made six weeks before the date of publication, e.g., June 15 for August ad. Please send ad requests to *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; or by fax, 612/378-3875; or e-mail, mm@mnmed.org.
- The publisher reserves the right to decline or withdraw advertisements. The publisher is not responsible for clerical or typographical errors and is not permitted to divulge the identity of advertisers who have replies sent to box numbers.
- Cancellation of ads must be made by the first of the month preceding month of issue.

---

**Quello Clinic, Ltd.:** Well-established, south suburban, physician-owned group seeking part/full-time OB/Gyn and family practice physicians to work in our Regular Day Clinic. We are also seeking physicians to work at our Urgent Care Sites. Contact medical director at 952/985-8931, or write Quello Clinic Ltd., 7801 East Bush Lake Road, Suite 300, Bloomington, MN 55439. (6/00-R)

---

**Fairview Health Services:** Practice opportunities in urban, suburban, and rural locations. Moonlighting opportunities also available. Please contact Fairview Physician Recruitment and Retention at 612/672-2288, 800/842-6469, fax: 612/672-2986, e-mail: recruit1@fairview.org or visit our Web site at www.fairview.org/recruitment. (1/00-R)

---

**Olmsted Medical Center** is seeking BC/BE physicians in family medicine, emergency medicine, and dermatology to join our 75-physician multispecialty group. Great opportunity for well-trained physicians to join a family-friendly group in a dynamic, progressive practice. In addition to its main office and hospital in Rochester, the Olmsted Medical Center system includes 11 branch office locations in southeastern Minnesota. Excellent salary and benefits, including health benefits, malpractice, spending accounts, educational funds, profit sharing, 401(k)/403(b), and relocation assistance. Send CV to Lois Till-Tarara, Olmsted Medical Center, 1650 Fourth Street SE, Rochester, MN 55904; 507/287-2430. Fax: 507/285-8973. (*3/99-R)

---

**Falls Medical Search Seeks Physicians** for practice opportunities locally and nationally. To explore new practice options confidentially, send your CV or call Pat Falls, Falls Medical Search, 34 Forest Dale Road, Minneapolis, MN 55410; 612/922-0207 or 800/383-8916. (*5/92-R)

---

**Receivables Financing:** Truth is ... physicians face a tremendous financial burden—delayed payments from third-party payers. We have a program that lets you use your receivables—income you've already earned—in the time frame that best suits your needs. Don't let your receivables keep you waiting. Contact us today. Kaufman Medical Funding, 612/470-7900. (4/00-R)

---

**BC/BE Internist:** Outstanding opportunity for well-trained individual interested in balancing personal values and professional endeavors. Seeking a seventh BC/BE general internist to join a 37-physician multispecialty group. Visit www.lrhc.org. Excellent salary/benefits package includes guaranteed salary the first year with full partnership after one year. For confidential information on this opportunity, contact David T. Bjork, M.D., Bruce E. Money, M.D., or Jim Wilkus, administrator, 615 South Mill Street, Fergus Falls, MN 56537, 218/739-2221. EEO/AA. 4-6/00

---

**MDsearch** assists medical groups and hospitals in their recruiting efforts. For confidential information on opportunities in the Upper Midwest, send CV and/or call collect Mary Jo Cordes, MDsearch, P.O. Box 21507, St. Paul, MN 55121; 651/454-7291. Fax: 651/454-7277. (2/93-R)

---



***ALEXANDRIA CLINIC, P. A.***

The Alexandria Clinic, P.A., is a 32-physician multi-specialty group currently recruiting additional physicians in the following specialties:

ENT

First-year salary guarantee with production bonus, second-year partnership. Excellent contract benefits. If interested in joining a young, growing organization located in beautiful lakes area community, please contact:

Administrator
Alexandria Clinic, P.A.
610 30th Ave. W., Alexandria, MN 56308
320•763•5123
email: admin@alexclinic.com

Check out our website at www.alexclinic.com

# Community Service Award

The MMA's Community Service Award honors an MMA physician who has an outstanding record of community service. A typical candidate might be a physician who:

- helps make free clinical care available to the needy;
- serves as a public official;
- coaches an athletic team;
- is a leader in promoting cultural or arts activities; or
- is a leader in expanding voluntary health programs.

The Community Service Award will be presented at the MMA Annual Meeting in Duluth on September 14, 2000.

If you know a physician who qualifies for this award, please fill out the attached nomination form and return it to Karen Tourdot, Minnesota Medical Association, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761.

---

## MINNESOTA MEDICAL ASSOCIATION
## PHYSICIAN AWARD FOR COMMUNITY SERVICE
## NOMINATION FORM

### Qualifications

1. The recipient must be a physician member of the Minnesota Medical Association licensed to practice medicine in the state of Minnesota.
2. The recipient must be living. Awards are not presented posthumously.
3. The recipient must have compiled an outstanding record of community service, which, apart from his or her specific identification as a physician, reflects well on the profession.

Name of nominee: _____

_____ (Home address)

_____ (Business address)

_____ (Home telephone)

_____ (Business telephone)

Describe why this person should receive the MMA Community Service Award: _____

_____

_____

_____

_____

(Supporting information may be attached.)

NOMINATION SUBMITTED BY:

_____ (Name - please print)

_____ (Telephone)

_____ (Address)

NOMINATIONS DUE ON OR BEFORE JULY 14, 2000

**Fergus Falls Medical Group, P.A.:** The Fergus Falls Medical Group is expanding its 37-physician multispecialty clinic and is seeking physicians in the following specialties: dermatology, family practice, internal medicine, ophthalmology, optometry, orthopedics, pediatrics, and urology. Excellent salary/benefits package includes guaranteed salary the first year, with full partnership after one year. For confidential information on this opportunity, contact David T. Bjork, M.D., or Jim Wilkus, administrator, 615 South Mill Street, Fergus Falls, MN 56537, 800/247-1066. EEO/AA. 4-6/00

---

**Minnesota:** Practice in the scenic 1,000 Grand Lakes area. Join four internal medicine physicians in a respected 24-member multispecialty clinic. Consultants visit the clinic on a regularly scheduled basis. Opportunity to live on one of the area's several lakes and enjoy the progressive business environment, strong schools, and Midwestern city spirit. Superb quality of life. A great place to raise a family! Attractive salary and benefits. Contact: George Ivekick 800/243-4353. 1-6/00

---

**Emergency Medicine:** Flexible lifestyle offered. Weekends, or work 3–9 days and have 20–27 off. Regional group staffing low-moderate volume ERs in northern Minnesota, Wisconsin, and northern Iowa. Contact: Brad McDonald, M.D., Wapiti Medical Group, 888/292-2036. 3-7/00

---

## Park Nicollet Clinic
## HealthSystem Minnesota

**Family Practice**

**Internal Medicine**

Park Nicollet Clinic is seeking BE/BC Family Practice Physicians and General Internists to join our multi-specialty group in western and southern suburban Minneapolis.

Award-winning Park Nicollet Clinic is one of the largest multi-specialty clinics in the country with nearly 500 physicians and 270 clinical professionals practicing in 45 medical subspecialties. The clinic is nationally and locally recognized for its care improvement initiatives.

Park Nicollet Clinic offers a variety of practice settings ranging from small primary care settings to specialty care in larger sites. Wherever a physician practices, they have the collaboration of their colleagues in providing the finest care.

For immediate consideration, please fax, mail, or email your CV and cover letter to:

Missy Fisher, Clinician Recruiter
HealthSystem Minnesota Park Nicollet Clinic
3800 Park Nicollet Boulevard - 7N
Minneapolis, MN 55416
(612) 993-6025 or (888) 437-5004
(612) 993-2819 fax
***fishem@hsmnet.com***

Equal Opportunity/Affirmative Action Employer

---

ASPEN Medical Group

Aspen Medical Group is a 160+ provider multispecialty group with 9 clinics located throughout the Minneapolis / St. Paul metro area. We are currently seeking BE/BC physicians for the following specialties:

*Dermatology*
*Hospitalist*
*Internal Medicine*
*Urgent Care*

Aspen Medical Group is governed by its own physicians and health care providers. Guaranteed base salary available for the first two years. Competitive benefits package.

For further information, please contact:

Nancy Borgstrom, Provider Services Coordinator
1020 Bandana Boulevard West
Saint Paul, MN 55108
phone 651-641-7081 • fax 651-641-7151
e-mail nborgstr@aspenmed.org

EOE. No J-1 opportunities available.

---

## *Senior Vice President for Medical Affairs*

Avera Health is establishing a new senior management position of Senior Vice President for Medical Affairs. This full-time position will be located in Sioux Falls, South Dakota, and include extensive travel within the Avera Health service area in parts of SD, IA, MN, NE, and ND. The position will report directly to the President/CEO of Avera Health and be a member of Avera's Senior Management Team.

The key functions of this position include serving as a steward of relationships between Avera Health and physicians throughout the Avera Health service area, providing physician leadership to quality improvement and managed care initiatives of the system and serving as a physician advocate in Avera Health decision making.

Preferred candidates should have at least three years medical practice experience in the described geographical area, possess strong verbal and analytical skills, be team oriented and have medical staff/association leadership experience.

Salary will be competitive. Avera Health offers an exceptional benefit program.

Working with its partners Avera Health provides a quality, cost-effective health ministry which reflects Gospel values. Our vision is to improve the health care of the people we serve throughout a regionally integrated network of persons and institutions.

Inquiries or requests for more information should be addressed to:

**John T. Porter**
**President/CEO**
**Avera Health**
**P.O. Box 38**
**Yankton, SD 57078**
**Telephone: 605/322-7050**
**Fax: 605/322-7060**

Avera Health

*Avera Health is an Equal Opportunity Employer*

**NORTHWESTERN WISCONSIN / NORTHEASTERN MINNESOTA**



# Midwest Living

***The ultimate mix of career and recreation.***

Select from practice opportunities in northwestern Wisconsin or northeastern Minnesota. Small towns or larger cities, we offer the best of midwest living with 25 locations. Clean air, clean water and an environment that brings you closer to all the things you value most. Enjoy a unique quality mix of career, four seasons of fun and outstanding growth potential with the region's most comprehensive health care system.

We seek **BE/BC physicians** in the following specialties:

- Dermatology
- Emergency Medicine
- Family Practice
- Gastroenterology
- Hematology/Oncology
- Infectious Disease
- Internal Medicine
- Internal Medicine - Intensivist
- Internal Medicine - Pediatrics
- Neonatology
- Neurology
- OB/GYN
- Orthopaedic Surgeon - General & Trauma
- Orthopaedic Hand Surgeon
- Pediatrics
- Perinatology
- Physiatry - Pediatric
- Psychiatry
- Radiology - General Diagnostic, Musculoskeletal, Neuroradiology, Interventional
- Trauma Surgery
- Urology

**SMDC**
St. Mary's/Duluth Clinic Health System

Call or Fax C.V. in confidence to:
Physician and Provider Recruitment
SMDC - St. Mary's/Duluth Clinic Health System
400 E. 3rd St., Dept. 504, Duluth MN 55805
1-800-342-1388 or 218-786-8364 Fax: 218-722-9952
e-mail: provider@smdc.org
Websites: www.smdc.org or www.duluth.com *EOE A/A*

***Dermatology, General Surgery, Internal Medicine, Neurology and Pediatrics***

There are immediate openings at Brainerd Medical Center for the following specialties: Dermatology, General Surgery, Internal Medicine, Neurology, and Pediatrics.

**Brainerd Medical Center, P.A.**

- 41-Physician independent multi-specialty group
- Located in a primary service area of 50,000 people
- Almost 100% fee-for-service
- Excellent fringe benefits
- Competitive compensation
- Exceptional services available at 162-bed local hospital, St. Joseph's Medical Center

**Brainerd, Minnesota**

- Surrounded by the premier lakes of Minnesota
- Located in central Minnesota less than 2½ hours from the Twin Cities, Duluth and Fargo
- Large, very progressive school district
- Great community for families

**Call collect to Administrator:**
Curt Nielson
(218) 828-7105 or (218) 829-4901
2024 South 6th Street
Brainerd, MN 56401
email: bmc@brainerd.net
internet:www.brainerdmedicalcenter.com

BMC

**Family Physicians:** Practice opportunity for family physicians at three sites in NW metro area. Camden Physicians, Ltd., is a growing, independent, physician-owned family practice single-specialty group. A competitive salary with excellent benefits and partnership opportunities is offered. Contact: William Youmans, M.D. (612/522-6601) or Edwin Olson (763/599-0092). Fax: 612/559-9404.

2-6/00

## JUNE 2000 INDEX TO ADVERTISERS

Acute Care, Inc. ..... 54
Advanced Imaging/MRI Financial Services, Inc. ..... 3
Affiliated Community Medical Centers ..... 63
Albert Lea Medical Center ..... 62
Alexandria Clinic, P.A. ..... 71
Allina ..... 39
Allina Continuing Education ..... 63
Army Reserve ..... 50
Aspen Medical Group ..... 73
Avera Health ..... 73
Bethesda Lutheran Hospital/HealthEast ..... Cover 2
Brainerd Medical Center ..... 46, 74
CentraCare Clinic ..... 75
Consulting Radiologists, Ltd. ..... 7
Delacore Resources ..... 66
Emergency Practice Associates ..... 68
Expert Practice ..... 66
First Call Physicians, Inc. ..... 16
Gillette Children's Hospital ..... 6
HealthPartners Institution CME for Medical Education .. 30, 32
HealthSystem Minnesota/Park Nicollet ..... 73
Hughes Clinic ..... Cover 4
Institute for Athletic Medicine ..... 16
Jordan Chiropractic Center ..... 62
Management Services by Choice ..... 64
Mankato Clinic ..... 63
Medical Protective Co. ..... 31
Midwest Medical Insurance Co. ..... 17, 41
Minnesota Center for Rural Health ..... 6
Minnesota Physicians Foundation ..... 56
MMA Membership ..... Cover 3
MMBR ..... 55, 69, 70
Montevideo Clinic ..... 54
Multicare Associates of the Twin Cities ..... 49, 56
Owatonna Clinic-Mayo Health Systems ..... 62
Preferred One ..... 56
Regions Hospital ..... 11
St. Mary's/Duluth Clinic Health System ..... 74
St. Paul Medical Services ..... 32
University of St. Thomas Graduate Programs ..... 44
Whitesell Medical Locums, Ltd. ..... 49
Winona Clinic, Ltd. ..... 56

*LLAMA cont. from page 76*

have to worry about them going to the bathroom where they're not supposed to. They never do that. They prefer their own special area at home."

Wogensen's llamas have won ribbons for their posture, stature, upright tails, straight legs, and perfect banana-shaped ears. But he's not fond of contests. "They're nerve-racking because the outcome depends as much on how well the owner shows the animal and how the judge feels that day as it does on how good the animal is. It can be disappointing, especially at the state fair level."

Wogensen is a member of "Llamas of Minnesota," an association of breeders. He chairs the organization's health committee. He says his medical knowledge comes in handy during llama births and for dealing with the animals' orthopedic problems, administering subcutaneous injections for parasites, and sleuthing out nutritional deficits when his hay crop doesn't have quite the protein content he'd like. He feels fortunate to have had only two llamas die. One, a full-term stillborn, was a very tough loss, he says.

Llamas are low-maintenance animals. Having three stomachs makes them efficient digesters, so they require less fodder than most farm animals. Llamas need one-fifth the pasture a horse needs. It takes Wogensen or his wife only a half hour to 45 minutes per day to care for his llamas in the winter—even less time in the summer. But that doesn't include the occasional barn cleaning, fence fixing, and shearing, which can be physically exhausting. "Two shearings in a row is all I can handle at once," he says.

Wogensen happily expounds on the physiology and behavioral biology of llamas. He says that some golf courses use llamas as caddies because their soft, padded feet are easy on fairways. Those feet make llamas trail-friendlier pack animals than donkeys or horses, which is why they're used in rugged-terrained national parks. He notes that Western sheep farmers use llamas to guard their flocks because they're better than dogs at keeping coyotes away. Wogensen explains that llamas are natives of Chile, Peru, and Bolivia, but their ancestors, originally from North America, were reintroduced into the United States in the 1920s because of their exotic charm. Interesting stuff. But Wogensen's command of the facts pales in comparison with his affection for these mellow, fellow creatures—green spit and all. MM

*Howard Bell is a medical writer who lives in Onalaska, Wisconsin, and a frequent contributor to* Minnesota Medicine.

**CentraCare Clinic** *is a progressive and growing 108-physician multi-specialty clinic with 9 Central Minnesota sites. Our clinics offer a comprehensive income and benefits package and are conveniently located between the Twin Cities and prime Minnesota lakes area. Central Minnesota offers an outstanding lifestyle with quality schools and abundant recreational activities. CentraCare Clinic is currently recruiting for the following locations:*

**CENTRACARE Clinic**
River Campus

*Join an exceptional 65-physician specialty clinic which currently has openings in the following specialties:*

- **Allergy**
- **Internal Medicine** *St. Cloud/Little Falls*
- **Dermatology**
- **Neurology**
- **Neurosurgery**
- **Gastroenterology**
- **Pediatric Intensivist**
- **Infectious Disease**
- **Rheumatology**
- **Non-Interventional Cardiology**

**CENTRACARE Clinic**
Heartland

*Join an experienced 6-physician clinic with an opening in:*

- **Family Practice Physician who practices Obstetrics**

**CENTRACARE Clinic**
Women & Children's Center

*Join an exceptional 21-physician clinic specializing in pediatrics and obstetrics/gynecology which currently has openings in the following specialties:*

- **Allergy**
- **Pediatrics**
- **Obstetrics/Gynecology**
- **Obstetrics specializing in Endocrinology & Reproductive Health**

*For further information, please call or write:*

***Karla Donlin***
***Kristine Cunningham***
*Physician Recruiters*

*1406 Sixth Avenue North*
*St. Cloud, MN 56303*
***1-800-835-6652***

*Not a health care profession shortage area.*

**CENTRACARE Clinic**

# Llama Lover

*Pathologist Jon Wogensen, M.D., is a llama farmer and aficionado.*

By Howard Bell

Jon Wogensen, M.D., is an expert on llama spit—a green, sticky goo regurgitated from the llama's first stomach (they have three). Llamas usually don't spit on people, just other llamas—lucky for Wogensen. The 62-year-old pathologist and director of laboratories at Fairview Ridges Hospital in Burnsville raises these intriguing creatures with his wife, Betty, on their 10-acre farm near Prior Lake.

Llamas are more than a hobby for Wogensen, who breeds and sells the animals to other breeders and to families. Llamas make great pets, says Wogensen. "They're curious, gentle animals—one of the most intelligent animals on four legs."

Wogensen's agrarian roots extend to Litchfield, where he grew up and where his dad taught high school agriculture classes and ran a feed 'n seed store. Betty grew up on a farm in the Cotswold region of England. The couple got their first pair of llamas for pets in 1994, shortly after they moved from Albert Lea to a former horse farm in Burnsville. "I decided to start breeding llamas after I read up on them and got to know the llama community—a friendly bunch," Wogensen says. Today, the Wogensens operate one of 200 llama farms in Minnesota, about 50 of which are in the Twin Cities metro area. "I'm small potatoes compared to some that have 40 or 60 or even 130 llamas," he says.

Wogensen raises his 20 llamas for their beauty, pleasant nature, and wool. Llama wool is worth 10 times more than sheep wool. The Wogensens sell it to spinners and weavers who turn it into lush fabric.

Wogensen selectively breeds his llamas to be inquisitive and mellow. "They automatically make you tranquil," he says. "And they're friendly. They come up and greet you. They learn things quickly, too. Repeat something two or three times and they've got it. They're a very nice animal."

Neutered males, called geldings, sell as pets for about $400 to $800; young females sell for $1,000 to $2,000, though the finest-featured females are worth as much as $15,000. "Llama prices have dropped by a factor of five or six since I started breeding them because there are so many breeders now," says Wogensen. "Supply is up, but so is demand. And the quality has gone up as the price has come down."

Wogensen has his own herd sire, a fertile male who saves him the expense and hassle of transporting his females to another farm for breeding. "Sire males are expensive guys," says Wogensen, "though they used to be more expensive. Now you can get a good one for about $5,000. Very few select males reach that pinnacle of being a sire. Most become geldings. You want only the superior llamas breeding."

Llama females, however, rule in what is decidedly a matriarchal pecking order. The oldest female is the alpha llama. Females of all ages dominate the male geldings. Even the female babies soon learn to boss the males. If they step out of line, the males get a dose of green slime. Communal and sociable, llamas sort themselves into concentric circles while pasturing—males at the outer fringe, females inside, and babies in the center. Families stick together.



Jon Wogensen, M.D., with one of his llamas.

Some of Wogensen's llamas enjoy attending parties at his house. Just like the human guests, the llamas like to hang out in the kitchen. "Their social nature is part of their charm," says Wogensen. "Never leave a llama by itself. They get very lonely, even depressed. I would never sell just one."

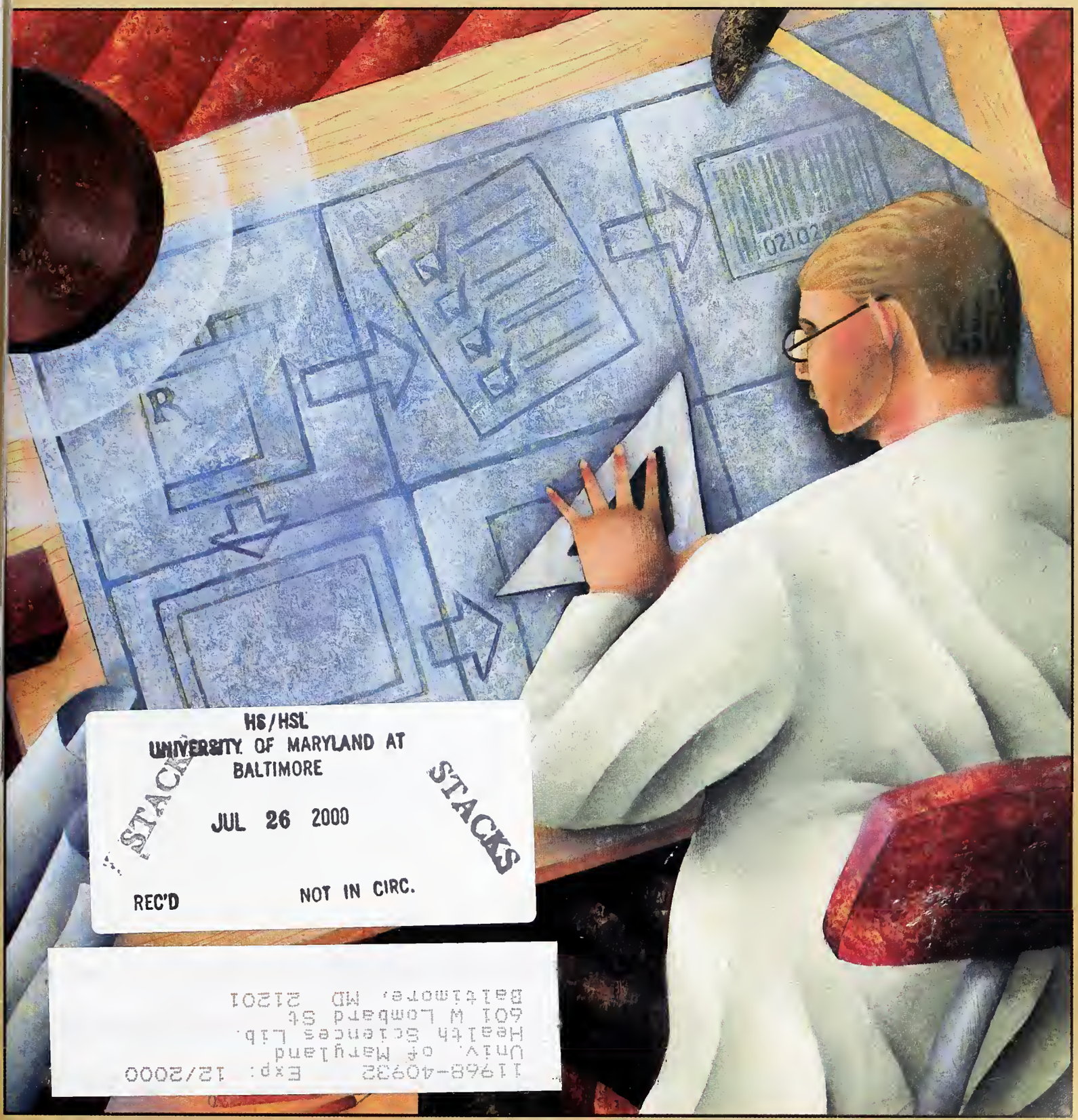
Some of Wogensen's best-behaved llamas visit schools and nursing homes. He calls them his "PR llamas." "They walk right into rooms, eager to meet and greet. You don't

*Llama to page 75*

The Cochrane Library's Clinical Evidence Reviews • Tattoos: Dispelling the Myths

# Minnesota Medicine

A JOURNAL OF CLINICAL AND HEALTH AFFAIRS



HS/HSL
UNIVERSITY OF MARYLAND AT
BALTIMORE
JUL 26 2000
STACKS
STACKS
REC'D
NOT IN CIRC.

11968-40932 Exp: 12/2000
Univ. of Maryland
Health Sciences Lib.
601 W Lombard St
Baltimore, MD 21201

## MEDICAL ERRORS:
## a blueprint for safety

JULY 2000

# DETERMINATION HAS A WAY
# DISGUISING ITSELF
# AS A MIRACL



Start by restoring confidence. Foster strength. And apply aggressive programs of therapy that promote independence through realistic and measurable goals. It's no miracle. It's how Bethesda helps reinvent lives.

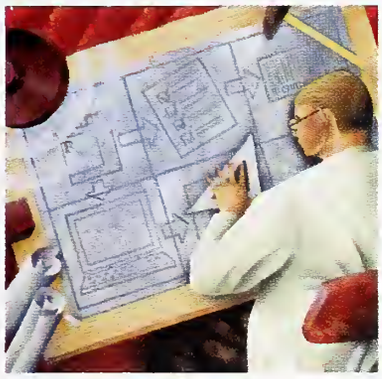
**BETHESDA REHABILITATION HOSPITAL**
800-566-2720
St. Paul, MN

HealthEast Care System
*Dedicated to Caring.*
www.healtheast.org

GERIATRIC MEDICAL BEHAVIORAL BRAIN INJURY PROGRESSIVE RESPIRATORY CARE REHABILITATION

# Minnesota Medicine

Published monthly by the Minnesota Medical Association



COVER
*Illustration by Elizabeth Lada.*

## DEPARTMENTS

2 ..... Editor's Note

33 ..... MMA News & Views

41 ..... Author Instructions

53 ..... CME in Minnesota

59 ..... Classified Ads

63 ..... Index to Advertisers

64 ..... Just Write

## BOOK REVIEW

**Learning to Say 'I Don't Know,'** a review by Charles R. Meyer, M.D., page 50.

*The morality tales Jerome Groopman shares in "Second Opinions: Stories of Intuition and Choice in the Changing World of Medicine," show that physicians' errors, arrogance, and ignorance can endanger patients' lives.*

## FACE TO FACE

6 **A Spokeswoman for Safety** ..... Anne Welsbacher
*3M's Carol Ley, M.D., M.P.H., says the medical profession must eliminate the culture of blame to learn from its mistakes.*

## COVER STORIES

10 **Preventing Medical Errors: A Blueprint for Safety** ..... Miriam Karmel Feldman
*Minnesota health care stakeholders design a safer system.*

12 **Error Prevention: One State's Approach** ..... Christina F. Rich, J.D.
*A Massachusetts coalition is leading the way in developing and implementing a statewide initiative to improve patient safety.*

14 **Physicians Can Help Implement 'Culture of Safety'** ..... Linda O. Prager
*With simple steps, physicians can embrace the call to reduce medical errors. But legislation and new standards lurk in the wings.*

18 **Error in Medicine: What Have We Learned?** ..... David W. Bates, M.D., M.Sc., and Atul A. Gawande, M.D., M.P.H.
*We have the means to reduce many kinds of medical error. But first, we must shift the responsibility from individuals to systems.*

## CLINICAL & HEALTH AFFAIRS

24 **Tattoos: Their Relationship to Trauma, Psychopathology, and Other Myths** ..... J. Kenneth Rooks, M.D., David J. Roberts, M.D., and Karen Scheltema, M.A., M.S.

## MEDICINE LAW & POLICY

29 **Managing Risk** ..... Debra McBride, R.N., J.D.
*How physicians can avert patient injury and malpractice suits.*

30 **Opening the National Practitioner Data Bank: Good Idea or Bad Public Policy?** ..... Christina F. Rich, J.D.

## SPECIAL REPORT

43 **The Cochrane Library: A Resource for Current Reviews of Clinical Evidence** ..... Amit Ghosh, M.D., Kathryn Robbins, Ph.D., and Julia Kelly, M.S.
*The Cochrane Collaboration gives physicians easier access to clinical evidence to help them make everyday decisions about patient care.*

## MMAA UPDATE

47 **Celebrating 40 Years of Service** ..... Cynthia Lehman
*For Karen Tourdot, executive director of the MMA Alliance, the tributes began the day she was hired—in 1960.*

# Learning from Our Mistakes

Doctors don't like mistakes. They don't like others' mistakes, and they especially don't like their own. How they respond to others' mistakes colors their relationships with colleagues. How they respond to their own mistakes determines whether they will become better practitioners.



Medicine attracts perfectionists who become more so as they move through the hazing we call medical training. Perfectionists don't like to have their imperfections identified. So by the time doctors escape the grillings and the morbidity/mortality conferences of residency and enter practice, they may have formed a defensive carapace that resists analysis of future mistakes. Mistakes unanalyzed will be mistakes repeated.

*"Education is a progressive discovery of our ignorance."*

–Will Durant

*"Error is the discipline through which we advance."*

–William Ellery Channing

Medical mistakes became big news with the Institute of Medicine's report "To Err Is Human: Building a Safer Health System," released in November. They became big politics when President Clinton responded to the findings by proposing a national reporting system for medical mistakes. As documented in our cover stories (pages 10–23), the IOM report and Clinton's reaction have triggered responses from every corner of the medical community. The responses range from calling for reporting and punishing the wrongdoer to error-proofing systems of medical care delivery, or even denying that the current system is flawed.

Mistakes happen in medicine because of errors in knowledge. Harried physicians or nurses assume they know the right dose of a medication. Inexperienced residents treat a new problem without proper backup. Knowing what you don't know and not relying on fatigue-susceptible memory help to combat knowledge errors. Such resources as the Cochrane Library (page 43) or computer knowledge bases should also help. But most important is cleansing the medical community of the idea that it is a sin to say, "I don't know."

Mistakes happen in medicine because of errors in judgment. Many of these are common mental shortcuts, such as overgeneralizing, acting prematurely on initial information or hypotheses, or deciding on a diagnosis and seeing only the data that support it: "I believe this patient has renal colic, so 0-1 red cells in the urine will do." Medical decision-making algorithms may limit some of these errors, but others are harder to quantify and rely on art more than science: "Does the reported chest pain in this 45-year-old man with a normal EKG merit his admission to the hospital?" All the practice guidelines on the Internet won't answer that question if the physician hasn't elicited a complete history.

Mistakes happen in medicine because of errors in execution. Physicians may know the right facts and issue the right orders, but a misread or misexecuted order can still cause damage. Execution mistakes are system problems; concrete improvements, such as those proposed in several of this month's articles, can dramatically reduce them.

And mistakes happen in medicine because of errors in attitude. Assuming *a priori* that patients' complaints are invalid leads to dangerous omissions. Concluding that a breast lump is benign because the mammogram is negative and never reconsidering when the patient expresses her concern can lead to late diagnoses, angry patients, or the malpractice suits described by Debra McBride, R.N., J.D. (page 29). Maintaining an open-minded, nonjudgmental attitude toward patients is a start. Further attitude renovation comes by continually re-examining what you do each day and asking yourself, "Do I really know that?"

Mark Twain claimed that he never let his schooling interfere with his education. Although that is exaggerated advice for doctors, its kernel of truth is that physicians should shun the traditional crime and punishment response to medical mistakes and realize that error can lead to wisdom.

*–Charles R. Meyer, M.D., Editor-in-Chief*

5 ours of sleep

18 our shift

20 inutes to eat

Plenty f time to get a iability insurance quote.

www.micoadirect.com

Now you can find a professional liability quote when you can find the time. With MICOA Direct, you can get a quote online quickly, easily and most importantly, when it's convenient for you. And it's a quote backed by a company that's been in the business for 25 years, has an A- (Excellent) rating from A.M. Best, and was actually founded by physicians for physicians. Simply log on to MICOA Direct or call 1-888-738-0504. All inquiries are protected and quotes are available within 24 hours of request Monday through Friday. Finally, professional liability quotes are available when you are.

1-888-738-0504

MICOA
Mutual Insurance Corporation Of America
Direct

The Customer Solutions People

# Minnesota Medicine

Published monthly by the Minnesota Medical Association

*Owner and Publisher*
Minnesota Medical Association

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Managing Editor*
Meredith McNab

*Associate Editors*
Margaret Parker
Carmen Peota

*Publications Assistant*
Katie Ocel

*MMA News & Views Editor*
Lorrie Holmgren

*MMA News & Views Writer*
Cynthia Lehman

*Graphic Designer*
Barbara Gerbig

Send manuscripts, subscriptions, and other material for consideration to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/378-1875. E-mail: mm@mnmed.org
The editors reserve the right to reject editorial, scientific, or advertising material submitted for publication in *Minnesota Medicine.* The views expressed in this journal do not necessarily represent those of the Minnesota Medical Association, its editors, or any of its constituents. Annual subscription–$40. Single copies–$3.50. Canadian–$70. Foreign–$70.

*To Advertise:* Contact Michele Holzwarth, *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/623-2880 or 800/DIAL MMA (342-5662).



**Advisory Committee**

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Advisory Committee*
Charles R. Meyer, M.D.
Edmund C. Burke, M.D.
Richard C. Lussky, M.D.
Lynne Ogawa, M.D.
Paul S. Sanders, M.D.
Leif I. Solberg, M.D.
Barbara P. Yawn, M.D.
Meredith McNab, staff

*Editors Emeritus*
Edmund C. Burke, M.D.
1991-1993

Richard L. Reece, M.D.
1975-1990

Reuben Berman, M.D.
1971-1974

Carl O. Rice, M.D.
1961-1970



**Copyright & Post Office Entry**

*Minnesota Medicine* (ISSN 0026-556X) is published on the fifth of each month by the Minnesota Medical Association, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761, copyright 2000. Permission to reproduce editorial material in this magazine must be obtained from *Minnesota Medicine.* Periodicals postage paid at Minneapolis, Minnesota, and at additional mailing offices. POSTMASTER, send address changes to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761. (USPS 3519000.)



MINNESOTA MEDICAL ASSOCIATION

**1999–2000 Officers**

*President*
John M. Van Etta, M.D.

*President-Elect*
Blanton Bessinger, M.D.

*Chair, Board of Trustees*
Robert K. Meiches, M.D.

*Vice President*
Kevin C. Fleming, M.D.

*Secretary*
David L. Estrin, M.D.

*Treasurer*
Noel R. Peterson, M.D.

*Speaker of the House*
Gary D. Hanovich, M.D.

*Vice Speaker of the House*
Rebecca Jean Hafner, M.D.

*Past President*
Judith F. Shank, M.D.

*Chief Executive Officer*
Paul S. Sanders, M.D.

**MMA Senior Staff**

*Director of Communications*
Lorrie Holmgren

*Chief Financial Officer*
George C. Lohmer Jr.

*Director of State and Federal Legislation*
David Renner

*Director of Health Law*
Christina F. Rich, J.D.

*Director of Health Economics and Policy Analysis*
Janet Silversmith

*Director of Executive Office*
Karen A. Tourdot

**Alliance**

*President*
Diane Gayes

*President-Elect*
Pam Schmidt

**Board of Trustees**

*N.W. District*
Jerry P. Rogers, M.D.

*N.E. District*
James L. Anderson, M.D.
Charles R. Helleloid, M.D.

*N. Central District*
James J. Dehen Jr., M.D.
Keith D. Larson, M.D.

*West Metro*
Lee Beecher, M.D.
Karen K. Dickson, M.D.
John W. Larsen, M.D.
Robert K. Meiches, M.D.
Henry T. Smith, M.D.

*East Metro*
Thomas Dunkel, M.D.
Joseph L. Rigatuso, M.D.

*S.W. District*
Terence P. Cahill, M.D.
Elton G. Wing, M.D.

*S.E. District*
Peter Amadio, M.D.
G. Richard Geier Jr., M.D.
Kimberly McKeon, M.D.

*Resident Member*
Andrew G. Moore, M.D.

*Medical Student*
Joel V. Oberstar

**AMA**

*AMA Delegates*
Robert D. Christensen, M.D.
Frank J. Indihar, M.D.
Carolyn J. McKay, M.D.
Lyle Munneke, M.D.
Audrey M. Nelson, M.D., *Chair*
Thomas L. Peyla, M.D.
Andrew J.K. Smith, M.D.

*AMA Alternates*
Raymond G. Christensen, M.D.
Kenneth W. Crabb, M.D.
Anthony C. Jaspers, M.D.
Paul C. Matson, M.D.
Sally Trippel, M.D.
John M. Van Etta, M.D.
Benjamin H. Whitten, M.D.



**MMA Address**

Minnesota Medical Association
3433 Broadway Street NE, Suite 300
Minneapolis, MN 55413-1761
Phone: 612/378-1875 or 800 DIAL MMA (342-5662)
Fax: 612/378-3875
E-mail: mma@mnmed.org
Web site: www.mnmed.org

# Special Care



## for Special Patients

Recovery from an illness, accident or injury requires experienced medical professionals, state of the art equipment and technologically advanced therapies. It also requires a comforting, nurturing staff, a "home away from home" environment and family involvement in patient care. Our hospital is dedicated to the recovery of critically ill patients. And we're with you every step of the way, with cost-effective care.

Vencor Hospital • Minneapolis is a specialty hospital for the critically ill/medically complex patient that provides a full spectrum of intensive and acute care for patients suffering from catastrophic illness or acute levels chronic diseases. Patients are referred to Vencor Hospital • Minneapolis because the severity and complexity of their medical condition precludes them from being accepted into a rehabilitation facility, subacute program or skilled nursing home. Vencor Hospital • Minneapolis also has an eight (8) bed Intensive Care Unit.

Admissions to Vencor Hospital • Minneapolis may be recommended by physicians, acute care hospitals, rehabilitation facilities, managed care providers, case management companies, or by the patient's family. In all cases, tours are encouraged.

To refer a patient to Vencor Hospital • Minneapolis, simply call the Referral Line at (612) 522 • 1899. Upon receiving the referral, a Vencor Hospital • Minneapolis Clinical Case Manager will evaluate the patient within four hours. The referring agency will be notified within 24 hours regarding the disposition decision.

Vencor

### Our Patient Care Services

Ventilator Weaning
Tracheostomy with Respiratory Needs
Cardiac Related Disorders
Neuromuscular/Neurovascular Disease
Methicillin-Resistant Staphaureus (MRSA)
Management of Complex Orthopedic Patients
Extensive Wound Care Complications
Multi-System/Organ Failure
Respiratory Failure
Dysphagia Management
Chest Trauma
Pulmonary Rehabilitation
Extensive Post-Operative Complications
Multiple Intravenous/Antibiotic Therapy
Pre-and Post-Operative Organ Tansplant Care
Total Parenteral Nutrition (TPN)
Vancomycin Resistant Entercoccus (VRE)

### Funding

Vencor Hospital • Minneapolis provides a full spectrum of quality care and aggressive therapies at an overall cost substantially less than traditional acute care hospitals. Reimbursement is accepted from the following:

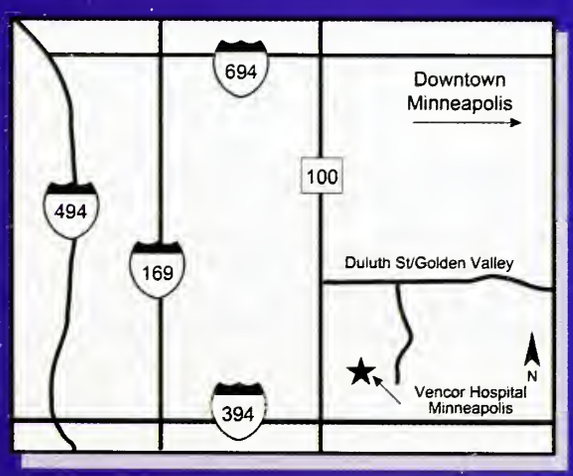
- Medicare (DRG Exempt)
- Medicaid
- Commercial Insurance
- Private or Self-Support
- Champus
- Managed Care

### Licensure/Accreditation

JCAHO
HCFA (Medicare Certification)
Acute Care Hospital (State of Minnesota)

### Location

Vencor Hospital • Minneapolis is conveniently located at 4101 Golden Valley Road in Minneapolis, Minnesota.




Vencor Hospital • Minneapolis
4101 Golden Valley Road Golden Valley, Minnesota 55422



PHOTOGRAPH BY JOHN NOLTNER

# A SPOKESWOMAN FOR SAFETY

*By Anne Welsbacher*

3M's Carol Ley, M.D., M.P.H., says the medical profession must eliminate the culture of blame to learn from its mistakes.

When her 8-year-old daughter, Jacquelyn, was admitted to the emergency room and then hospitalized for a broken arm last year, Carol Ley found her interest in patient safety had shifted from professional to personal. Ley, a physician, executive, and patient safety advocate, quickly learned professional expertise and parental vigilance weren't enough to prevent a medical mistake that could have cost her her daughter's life.

"Jacquelyn's experience with a medical mistake made me personally very aware of patient safety," Ley says. "And it made me much more aware that it's a systems issue that needs to be talked about."

As vice chair of the National Patient Safety Foundation (NPSF) and associate medical director of Corporate Occupational Medicine in 3M's Medical Department, Carol Ley, M.D., M.P.H., is in an ideal position to talk about patient safety. At 3M, Ley advocates for the health and well-being of employees and works with employee benefits and human resources personnel in creating health care plans and programs. Well-versed in all aspects of health care delivery, Ley has the ear of the many factions of health care—from industry leaders and insurers to physicians and patients.

The NPSF is an independent, nonprofit organization founded in 1997 to "measurably improve patient safety in the delivery of health care." The foundation's board includes physicians, insurance executives, academics, nurses, retired persons, FDA employees, parents, researchers, and members of the media. "The reason we have a cross-functional group is because everybody has a stake in making health care safer," says Ley.

The NPSF was founded by the American Medical Association, CNA HealthPro, and 3M. The latter invested $1 million and lent executive Dawn McGinley, communications manager for health care markets at 3M, who is now NPSF's half-time director of communications. "Dawn adds tremendous communication expertise to the NPSF," says Ley. "She has an ability to listen to stakeholders and translate into a common language that focuses on patient safety."

## *Diplomat*

Ley acknowledges that it was she who first presented patient safety to 3M. The leadership at 3M immediately embraced patient safety and put forth the support and funding. "My work at the NPSF has been enthusiastically supported across the company," says Ley. "Because it is a company that has safety for employees on the job as a top priority, safety in health care is a natural. Safety as a priority in health care is one area in which all groups from managed care to patient advocacy can agree."

Ley helps build relationships between 3M and other organizations, including the AMA, the VA, the American Association for the Advancement of Science, the American Lung Association, and the Society for the Advancement of Women's Health Research. For example, Ley worked with the Veterans Administration to set up studies on the 3M product Aldara, which is used to treat genital warts and is showing promise as a skin cancer treatment. She also brought together the American Lung Association and a division of 3M that develops air filters.

## *Career Choice*

Ley has been involved with patient safety for most of her professional life. After receiving her M.D. from the University of Minnesota Medical School in 1984 and M.P.H. from the university's School of Public Health in 1986, she completed a residency in occupational and environmental health at St. Paul-Ramsey Medical Center, now Regions Hospital. She was director of occupational health services at MultiCare Associates of the Twin Cities for three years and started at 3M in 1990.

Ley says she chose occupational health because it offered her a flexible schedule when she was a new mother. But her passion for the field is evident. "You can do anything in occupational health," she says, her smile broadening. "You can see patients in hospitals, you can be a consultant, work in clinics or corporations—it's really a wonderful field."

Occupational health offers lessons for patient safety, she says. "We have systems in the workplace that focus on safety. Successful corporations have safety as a core value. They understand that healthy employees are productive contributors. Everyone from the CEO on down has safety as a first priority. A systems approach is used to prevent injury. We don't have patient safety systems in place for health care."

## *A Systems Issue*

Medical errors happen, Ley says, because of multiple snags throughout a system. "The system breaks down. Health care is incredibly complex. If you listen to the stories, it's not just one thing that goes wrong, it's a whole host of things."

Ley's own story demonstrates precisely this. When Jacquelyn broke her arm, both Ley and her husband, Jeffrey Ley, M.D., an orthopedic surgeon at Fairview Lakes Regional Medical Center in Wyoming, Minnesota, closely monitored their daughter and everything that happened to her during her hospital stay. "I'm sure the nurses just hated me because everything I said was, 'What's that? How come you're doing that?' " says Ley.

Following surgery, Jacquelyn was given a patient-controlled anesthesia pump to administer morphine to control her pain. She was fitted with multiple monitors, and nurses checked her vital signs round the clock. It was Labor Day weekend, and some of the nurses were not familiar with the pump, a device Ley says is difficult to program. At the end of Jacquelyn's third day in the hospital, her pain had diminished and the staff had suggested turning off the pump and some of the monitor alarms, which had been ringing repeatedly. They left the pump attached. Exhausted and agitated, Jacquelyn was given doses of Benadryl and codeine, and the nurses agreed to allow her to sleep through the night. Ley, too, fell asleep.

But in the middle of the night, Ley awoke and discovered the pump had been turned up instead of off, and her daughter was barely responsive. A longer exposure to the morphine from the pump, combined with the oral drugs, could have seriously harmed Jacquelyn.

"She's fine, but it made me realize you can't control everything," Ley says. "I assumed that as a physician, 'Hey, I've got this health care thing licked—I know the best hospitals, the best doctors.' But this showed me that patient safety is an issue for everyone. I'd also thought of it as a doctor-driven issue—but here, a doctor wasn't involved at all."

It was a sequence of events that began with a nursing staff unfamiliar with the PCA pump, included alarms that rang continuously for three days and then were partially turned off and decisions to let the patient sleep uninterrupted and to administer an oral dose of codeine and Benadryl, and culminated with the faulty programming of the pump.

The traditional response to the mistakes made in Jacquelyn's case would have been to fire a nurse, get rid of the PCA pumps, or assign blame somewhere. "But that's ineffective," says Ley.

Instead, she says, we need to solve the problems. And that, she says, is best done by a systems approach involving all parties—to analyze the error and its causes and prevent a similar occurrence.

A key factor in medical errors, Ley believes, is the culture of blame in health care. "We report an accident and then lock it up. We can't learn from it because we can't talk about it. And we can't talk about 'almost' accidents."

## *Achievable Goals*

Learning from past mistakes is a key to change, Ley believes, and one of the goals of the National Patient Safety Foundation, which works in four areas: research, communication, education, and applications. Ley notes the importance of the first three strategies. "We need good, solid research, and there isn't much right now." The NPSF awards research grants, has developed a research agenda, and plans to hold a research summit. It hosts regional forums and international conferences, and provides a clearinghouse, speakers' bureau, and patient education materials.

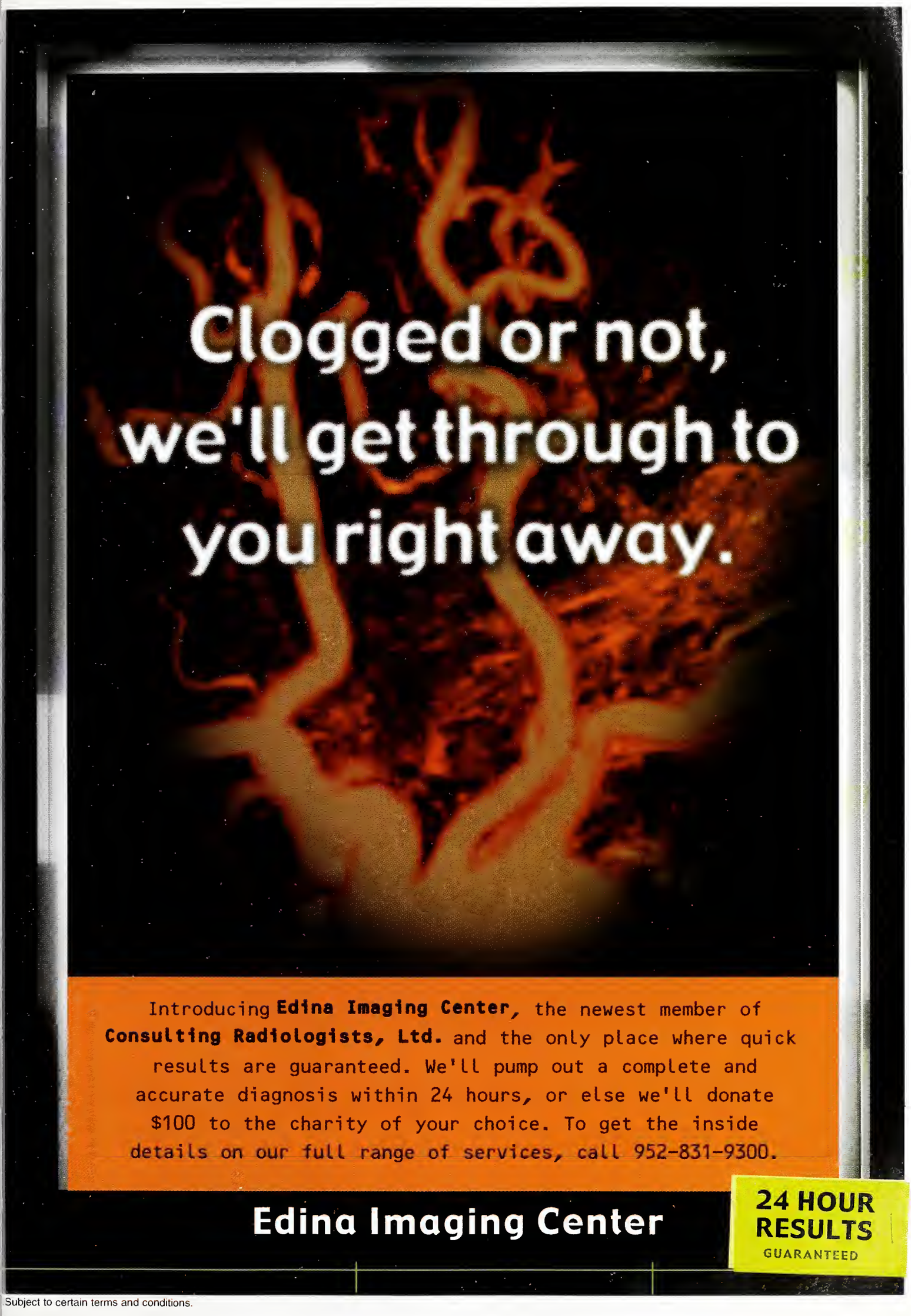
But what excites Ley most is the work being done in the fourth area, applications. She says many solutions to medical errors, large and small, are already "out there" and simply need to be better communicated. Many more can be established relatively easily. For example, concentrated potassium chloride, to be mixed in IV bags, once hung alongside diluted potassium chloride on the floors in many hospitals. Occasionally, the wrong batch was grabbed, leading to overdoses. Now, the concentrated substance is kept in the pharmacy and mixed into the IV solution before being delivered to the floor. "That's a relatively simple solution to a potentially lethal situation," says Ley.

Color-coding medical doses by children's ages and weights is another easy fix, one that could prevent a 6- or 7-year-old from getting a 14-year-old's dose. Surgeons can prevent errors by simply signing the knee or arm to be operated on. Ley says these solutions need to be well known to be effective—not just among other health care workers but among patients, too. "You, as a patient, need to know to ask your doctor, 'When are you going to sign my surgical site?' "

## *Personal Life*

Ley balances her high-profile work life with what she claims is a modest home life. She spends time with her three children, Katelyn (14), Jacquelyn (8), and Jeffrey (5), reads, travels, skis, and runs with her husband. The running is challenging, Ley says.

*Dr. Carol Ley continued on page 63*


Clogged or not,
we'll get through to
you right away.
Introducing Edina Imaging Center, the newest member of Consulting Radiologists, Ltd. and the only place where quick results are guaranteed. We'll pump out a complete and accurate diagnosis within 24 hours, or else we'll donate $100 to the charity of your choice. To get the inside details on our full range of services, call 952-831-9300.
Edina Imaging Center
24 HOUR RESULTS
GUARANTEED
Subject to certain terms and conditions.

# PREVENTING MEDICAL ERRORS

## Minnesota Health Care Stakeholders Design a Safer System

## a blueprint for safety

by Miriam Karmel Feldman

### PERFECTION.

*When it comes to health care, we expect it. But in medicine, as in any other human enterprise, mistakes happen. Anything can go wrong—and too often something does—from failure of medical devices to errors in blood transfusion, amputation of the wrong body part, improper insertion of catheters, and medication mix-ups.*



ILLUSTRATIONS BY ELIZABETH LADA

Medical errors ranks as the fourth or fifth largest public health problem in the United States, according to studies from the Institute for Health Improvement and Harvard University's School of Public Health. More people die in a given year from medical mistakes than from motor vehicle accidents, breast cancer, or AIDS. According to a report released last November by the Institute of Medicine (IOM), as many as 98,000 medical mistakes occur annually in the United States, at a cost of $17 billion to $29 billion a year. The IOM report, "To Err Is Human: Building a Safer Health System," called for a reduction in medical errors over the next five years, with the goal of improving patient safety, which it defined as "freedom from accidental injury." A few months later, President Clinton endorsed that goal and called for a nationwide system of reporting medical errors.



Though Minnesota is one of 21 states that already require hospitals to report serious errors, the IOM report was a wake-up call to local providers concerned about patient safety. In March the Minnesota Medical Association and the Minnesota Hospital and Healthcare Partnership convened a patient safety work group of nearly two dozen private stakeholders, including physicians, pharmacists, nurses, hospital administrators, and health plan executives, to begin talking about a state initiative on patient safety.

"It's clear that if we're going to address the issue of patient safety, it has to be addressed by people who can change things—the providers," says MMA CEO Paul Sanders, M.D. Some people say, 'Let's dispute the findings.' We're taking a different tack. Regardless of the applicability to Minnesota, the bottom line is, there is a persistent issue of patient safety."

In fact, several months before the release of the IOM report, the *St. Paul Pioneer Press* ran a special feature on patient safety in which it reported that medical mistakes caused 26 deaths in the state between 1994 and 1997. That same article reported 584 patient injuries by medical personnel in 1998, a figure released by the Minnesota Hospital and Healthcare Partnership (MHHP), a trade association representing the state's hospitals and health systems.

### Why Now?

Patient safety has come to the forefront for reasons ranging from public concern about the quality of the health care system to increased media coverage of high-profile medical errors. One of those involved the 1994 death of *Boston Globe* health reporter Betsy Lehman from an overdose of chemotherapy. In 1996, following a year of such highly publicized incidents with serious consequences, the AMA and other organizations held the first multidisciplinary conference on errors in health care. The next year, the AMA, with 3M and CNA HealthPro, launched the National Patient Safety Foundation to promote safety in the health care system. The NPSF, an independent nonprofit organization supporting research, communication, education, and applications that reduce medical errors, operates under several assumptions: patient safety is central to quality health care, the health

# Error Prevention: One State's Approach

by Christina F. Rich, J.D.

The Massachusetts Coalition for the Prevention of Medical Errors was one of the earliest state coalitions established in response to the Institute of Medicine's report on medical errors released last fall. The purpose of the Massachusetts group was to develop and implement a statewide initiative to improve patient safety and minimize medical errors. The group found that a single forum for sharing knowledge and information about the causes and potential strategies for preventing medical errors did not exist anywhere in the state.

The goals of the coalition are:

1. To establish a mechanism to identify and implement best practices to minimize medical errors;
2. To increase awareness of error prevention strategies through public and professional education;
3. To identify areas of mutual interest and minimize duplication of regulatory and Joint Commission on Accreditation of Healthcare Organizations (JCAHO) requirements so that efforts are focused on initiatives that can best improve patient care.

### Participants

The coalition participants include senior leaders and expert staff from numerous organizations dealing with health care and quality issues:

- State and federal agencies with responsibility for licensure and oversight;
- Professional associations representing hospitals, physicians, nurses, nurse executives, and long-term care institutions;
- Individual health care providers;
- Malpractice insurance carriers;
- Accrediting bodies;
- Clinical researchers;
- Consumer organizations.

### Medication Error Prevention Project

The coalition's first prevention strategy focused on medication errors, building on an existing Massachusetts Hospital Association (MHA) medication error prevention project. A survey tool developed by MHA and the Institute for Safe Medication Practices was used to analyze baseline data on the different approaches to safe medication administration practices. The survey results, along with available research on the causes of and remedies for medication errors, were used to build consensus on the specific actions health care institutions and providers can take to reduce the potential for such errors.

The principles for best practices in reducing medication errors include promoting a nonpunitive atmosphere for reporting errors and adopting a systems approach to error reduction that involves strategies of standardization and simplification, and use of computers. Among the specific recommendations for medication administration are maintaining unit-dose distribution systems on all nonemergency medication (either manufacturer-prepared or repackaged by the pharmacy); instituting pharmacy-based IV mixture systems rather than having nurses prepare IV solutions on patient care units; removing vials of concentrated potassium chloride from nursing stations and patient care units; and developing special procedures for high-risk drugs, including checklists, preprinted orders, double checks, special packaging, and labeling. Other recommendations center on clinician and patient education and the availability of an on-call pharmacist after regular pharmacy hours.

To learn more about the Massachusetts Coalition or to view the full report on Best Practice Recommendations to Reduce Medication Errors, visit the coalition Web site at http://www.mhalink.org/mcpme/.

*Christina Rich is director of health law for the Minnesota Medical Association.*

care system is inherently risky, and human error is to be expected.

A poll released by the NPSF in October 1997 found that more than 100 million Americans believe they have been affected by a medical mistake. Of those surveyed, 42 percent had been affected by a medical mistake either personally or through friends or relatives. The report, "Finding Cures for Medical Error," recommended putting an end to medicine's "culture of secrecy"—a work culture in which mistakes are seen as individual failures and are not reported for fear of punishment or legal action.

It is against this backdrop of growing concern that Minnesota's patient safety group will be working to reduce medical error. Though the group has yet to establish a step-by-step agenda, it will likely be influenced by the science of safety. Implicit in that science is the notion that mistakes do happen, but that many mistakes can be prevented by changing the system in which they occur. As the IOM report noted: "To err is human, but errors can be prevented."

### Medicine and Mosquitoes

James Reason, a professor of psychology at the University of Manchester, in England, has spent a lifetime studying the science of safety, which he has applied to creating safe systems in health care. Reason compares active medical failures to mosquitoes in the paper, "Human Error: Models and Management," which appeared in the March 2000 issue of the *British Medical Journal*. Reason notes that if we swat mosquitoes one by one, they keep coming. To get rid of them, we need to drain the swamps in which they breed. Reason suggests that the health care system hasn't yet "drained the swamps." Instead, it continues to be a system of shaming and blaming and finger pointing, in which individuals are singled out for punishment (the equivalent of swatting) when an error occurs.

"It's a very reactive system right now," says Jill Egan, senior vice president and chief operating officer of MHHP. "Our system has been set up for people to expect that people do not make mistakes. Our system assumes perfection."

Julie Morath, R.N., chief operating officer at Children's Hospitals and Clinics, agrees. "Society often calls for heads to roll when things go wrong," says Morath, who has written extensively on the subject of patient safety. Safety issues are especially challenging in health care because of the tremendous sense of failure and devastation when something intended to do good does harm, she adds. Morath suggests that before we can think about improving patient safety, we have to acknowledge that humans—even doctors and other health care providers—are imperfect. People do get distracted. They get tired. As a result, failure is always a risk.

Still, we can prevent accidents. But first we need to understand how they happen. The science of safety posits that it takes a cascade of events to cause a medical disaster. "Every error that occurs seems to be a series of small things that happen," explains Carol Ley, M.D., M.P.H. (see profile, page 6). Ley, associate medical director at 3M and vice chair of the NPSF, says that a medical error typically involves multiple people interacting in a complex situation. Usually, at least four things need to go wrong in sequence for an adverse event to occur.



One common sequence of events, involving the administration or use of medication, goes something like this: An oral order is given. A nurse mishears it and communicates the order to a pharmacist. The pharmacist doesn't catch the error and fills a wrong dosage. The drug is sent to a unit to be administered. It doesn't look quite right, but the nurse knows the pharmacist and therefore doesn't question it. The nurse administers the drug, which produces an adverse reaction. That sequence happens all the time, says Morath.

What's more, it happens in an atmosphere that is rife with shame, fear, and legal repercussions. The result is that events are not reported or communicated, an omission that keeps everyone from learning how to prevent the next accident.

"I don't know that anybody is satisfied with the way we currently handle it [medical errors]," Ley says. "Physicians can't talk to their patients. Patients get frustrated. Patients talk to lawyers. It's a very reactive system right now, rather than a preventive system. We need to prevent these errors from happening. We need to change this system."

Basically, we need an accountable system, not a blaming one. As Morath puts it: "It isn't about placing blame when things go wrong. It's about really appreciating and understanding risk and taking action to reduce it."

### What Kinds of Action?

The IOM report makes these recommendations for reducing medical errors:

- Computerized prescriptions,
- Equipment standardization,
- FDA action to address the problem of look-alike, sound-alike drugs,
- Increased communication between doctors and their patients,
- More funding of safety research,
- Government-required reporting of medical mistakes,
- Open discussion of medical errors.

Clearly, there's no dearth of suggestions for changing the system. The challenge will be finding a fair way to implement change, says Steve Wetzell, executive di-

rector of policy and public affairs for the Buyers Health Care Action Group, a coalition of 51 Upper Midwest employers collectively seeking value in buying health care. Wetzell wants to know what happens if a hospital cannot afford to implement a recommended safety initiative. "What happens then? That's the discussion we need to have," he says. "If you have institutions that don't meet the standard, and an employer becomes aware of that, what do you do with that information?"

But Wetzell doesn't want to engage in finger pointing. Instead, he hopes for a dialogue that will lead to the establishment of measures that are based on the science of safety. "This is at the heart and soul of what the medical profession is all about."

As a member of the Leap Frog Group, an ad hoc coalition of some of the nation's largest businesses, Wetzell has already thought a lot about patient safety. Leap Frog identified three areas for improving patient safety, including the management of prescription drugs in inpatient settings, the relationship between positive outcome and volume for certain procedures, and staffing requirements for intensive care units.

Minnesota's patient safety work group is still a long way from recommending standards. But when it does, it will be easy enough to start with what Ley calls "low-hanging fruit," the measures that can readily be implemented, but often are overlooked until an adverse event occurs. It would be easy, for example, to rid the hospital wards of concentrated epinephrine and concentrated potassium chloride, which cause several deaths each year. Another simple and low-cost measure would be the adoption of the orthopedic surgeon's "sign your site"

# Physicians Can Help Implement 'Culture of Safety'

by Linda O. Prager

As lawmakers and health care groups seek concrete mechanisms to reduce medical errors, physicians are being challenged to step forward with their own solutions.

Myriad proposals have surfaced in the wake of last year's Institute of Medicine report, including new legislation. Too often, however, these measures don't include well-defined roles for physicians working in the patient care trenches.

"Professionalism is the real key to patient safety," said John M. Eisenberg, M.D., who serves as head of the federal Agency for Healthcare Research and Quality, at a recent forum sponsored by the AMA. "We need an evidence-based approach."

Practicing physicians can do their part to bring a "culture of safety" to health care by first considering what error-reduction strategies they can immediately adopt in their own work, several speakers noted.

"Make it little stuff," said internist and endocrinologist Mary T. Herald, M.D. "At a time when we all feel tossed about by external factors influencing our practice, we can put into small bites things we can do at our own local levels."

Checklists and protocols can be developed for handling highly hazardous procedures or medications. Practice guidelines can be more widely disseminated and used. Teams of physicians and other caregivers working together in hospital settings can take stock of potential dangers in the processes they follow and devise solutions before errors occur, advised Herald, who also is an associate clinical professor at Columbia University's College of Physicians and Surgeons in New York City. "The key is to make this issue apply to individual doctors so they can begin to look at solutions. We need to do this on a small scale before we'll be successful at the broad policy level."

### Safety Bill Introduced

Yet there's plenty of current activity at that broad policy level.

Among the latest is a bipartisan bill that would require safety programs by hospitals, ambulatory surgery centers, and other facilities as a condition of participation in Medicare and Medicaid. It also would establish a federal safety center and expand peer review protections to error reports and analyses.

"Our health care system stresses prevention of illness. It should also stress prevention of error," said Sen. Charles Grassley (R-Iowa), one of four co-sponsors of the Stop All Frequent Errors (SAFE) in Medicare and Medicaid Act of 2000, introduced in April.

The SAFE bill would require facilities to establish safety programs that produce measurable reductions in errors. Institutions would be expected to perform root cause analyses and devise corrective action plans. They would be required to report designated errors to a series of officials: state health departments, accreditors, and federal peer review organizations. Aggregate data excluding identification of the facility or health care professionals involved then would be reported to the Depart-

program, requiring surgeons to mark the surgical site before operating. Other systemic changes, such as computerized order entry and computerized medical records, will be harder to implement. Such programs are expensive, Ley says, and not always compatible with existing systems.

### First Steps

Given that medication administration and use cause the most medical accidents, that's where Children's Hospitals and Clinics began its patient safety initiative. The Children's plan includes removing all concentrated potassium chloride from hospital floors; making pharmacists available 24 hours a day, using color-coded wristbands for patients with allergies, putting warning labels on look-alike and sound-alike drugs, and considering new limits on shift length.

Children's didn't have to spend months developing these measures, but instead borrowed the Institute for Health Improvements' list of best practices for medication use. "There are best and better practices out there," says Morath. "It's a matter of learning about them, reporting the new ideas, and making sure they're appropriate to your environment."

Such systemic changes, simple as they seem, should reduce the potential for a tired or distracted provider to make a mistake. But those who have studied medical error say the culture also must change. That means reporting systems need to be established and people must feel safe to use them. "Right now it's a punitive system, so you end up with a malpractice suit, careers ruined, people afraid of any number of consequences," says

SOME SIMPLE STEPS CAN HELP PRACTICING PHYSICIANS EMBRACE THE CALL TO REDUCE MEDICAL ERRORS. BUT LEGISLATION AND NEW STANDARDS LURK IN THE WINGS.

ment of Health and Human Services. The names of facilities with poor track records on reporting errors or devising corrective actions would be given to HHS and made public.

Alan R. Nelson, M.D., former head of the American Society of Internal Medicine, told forum participants that he finds the multitiered reporting requirements and the threat of public disclosure problematic.

Nelson, an official reviewer of the IOM report, predicted that the bill wouldn't pass this year. Attention on Capitol Hill is likely to "help drive voluntary efforts toward things that are doable right away," he said.

### Private Sector, Accreditors Seek Solutions

Indeed, a number of private-sector organizations are attempting to implement error-reduction strategies.

The National Patient Safety Foundation at the AMA will hold a conference this fall on innovative safety solutions and then help to ensure the ideas are disseminated and adopted.

Kaiser Permanente is one physician organization working on ways to emphasize safety within its broader quality improvement activities. To improve their team interactions in crisis situations in the operating room, Permanente anesthesiologists in Colorado are using simulators and crew interaction theory developed for airline cockpits. Its California physicians are refining how they review significant events and are taking steps to cut medication errors, such as adopting common abbreviations.

"We need to move away from the traditional ABCs of medicine—assess, blame, and criticize—to get our peer review process to take a systems approach to safety," said Ron Potts, M.D., medical director for quality management and systems for Permanente's Northwest division.

Accreditors also are intensifying their focus on safety issues through their standards. And some of these could directly impact physicians.

For example, the National Committee for Quality Assurance is considering the feasibility of requiring health plans to implement broad safety programs that could include standardized visits of physician practice sites to assess patient safety.

NCQA Executive Vice President L. Gregory Pawlson, M.D., emphasized that the site visit requirement was merely a preliminary proposal at this point. The accreditor does not want to create additional burdens on doctors or hospitals that could hamper safety efforts, he said. "But we need ways through which plans can reinforce the efforts of professionals."

Even if it's just an idea on the drawing board, the potential for standards in this area shows that practicing physicians will be affected by the current safety push.

Nelson also expects calls for mandatory reporting of errors to ultimately extend to private physician offices. That's just one reason he's urging doctors now to "see error reductions as a challenge, not a threat."

*Reprinted with permission from* American Medical News *2000;43(19):7,11.* *Copyright 2000, American Medical Association.*

# For complete healthcare Internet services, there's just one name to remember




THE INTERNET RESOURCE DESIGNED EXCLUSIVELY FOR HEALTHCARE PROFESSIONALS

**A total online service featuring healthcare resources, helpful links and professional services**

In your business, quick access to information is critical. The MMIC Medical Services Portal is a medical provider's best choice for complete online services, providing physician practices with the tools and technology needed to remain strong and competitive in today's rapidly changing marketplace. MMICmedportal provides you with online business tools, technology and information system solutions as well as clinical and practice management resources, local news and weather plus a nationwide physician directory. Whether you need to search for possible side effects of the latest FDA approved drug, obtain reference material on a rare congenital condition or contact a medical colleague from across the nation, you can count on MMICmedportal.

**Save time and improve your efficiency**

Chances are you already rely on the Internet at home. Why not make the Internet a part of your office as well? Brought to you by Midwest Medical Insurance Company, MMICmedportal was designed by medical professionals for medical professionals...your assurance of reliable information you'll find at your fingertips.

***To learn more about how MMICmedportal can work for you, call 1-800-328-5532 or visit us at www.mmicmedportal.com***

The MMICmedportal is a service of the Midwest Medical Group of Companies

MMIC™ medportal

*Progressive Internet Services for Healthcare Professionals*

MHHP's Egan. "We have to take the fear out of the system to make it the safest for the patient. Standing in our way is a lack of immunity for reporting errors."

Another impediment is a lack of resources, according to Michael Scandrett, executive director of the Minnesota Council of Health Plans. He believes the current labor shortage and a lack of financial resources may be the biggest stumbling blocks to achieving patient safety. "People can quickly come up with ways to prevent those mistakes from occurring in the future. The challenge is the resource issue," he says. "We can fairly easily see what the dream solutions would be. The problem is, how do you make them happen when you have limited resources?"

Scandrett, a member of the patient safety work group, is also concerned that the discussion of medical errors may alarm patients entering the health care system. "It can potentially become another reason to criticize the system that probably isn't justified on a data basis, because most people will receive excellent care," he says.

The patient safety work group will take a methodical look at where mistakes occur and then generate targeted solutions, Scandrett says. "It's the kind of thing we've been doing in Minnesota for a long time. It's just got a different focus because of the IOM report."

Wetzell credits the IOM report with providing that new focus. "The good thing we see about the IOM report is that it has brought an issue at the heart of medicine to the public's attention. American society just takes safety and quality in health care for granted. It assumes it's there. Maybe that's not a proper assumption," he says. "It's nice to have a debate about something other than money for a change."

It's still too early to say what direction the Minnesota work group will take, or what timeline it will establish. But people are ready for concrete solutions, says Ley. "I think people are tired of hearing, 'Safety's a problem. Safety's a problem. Safety's a problem.' They want to know what are some solutions we can institute at our own organizations that will really make a difference." MM

*Miriam Karmel Feldman is a writer living in Minneapolis.*

*The NPSF Web site at* www.npsf.org *provides further information about patient safety and links to related sites, including the complete text of the Institute of Medicine's report, "To Err Is Human: Building a Safer Health System."*




**Continuing Medical Education**

sponsored by Allina Health System

**September 2000**

1 — **Advanced Cardiac Life Support (ACLS)**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Abbott Northwestern Hospital, Minneapolis

9 — **Retina Update 2000**
*(watch for additional information in future editions)*

15 — **Obsessive-Compulsive Disorders (OCD) in Adolescents**
PRESENTED BY: Allina Behavioral Health
LOCATION: United Hospital, St. Paul

18 & 19 — **Advanced Trauma Life Support (ATLS)**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: United Hospital Conference Center, St. Paul

**October 2000**

6 — **Prevention, Diagnosis and Treatment of Breast Disease**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Earle Brown Heritage Center, BrooklynCenter

13 — **Minnesota and the Aging Driver: Your Options as a Professional**
PRESENTED BY: Allina Hospitals & Clinics, AAA, GRECC/VA Hospital, State of MN Dept. of Public Safety, and Sister Kenny Rehabilitation Services
LOCATION: Earle Brown Heritage Center, Brooklyn Center

26 & 27 — **2000 Front Line Neurology Symposium**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: DoubleTree Hotel, by Mall of America, Bloomington

**November 2000**

3 — **Patient Educator Conference**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Abbott Northwestern Hospital, Minneapolis

For more information contact:
**Allina Education and Research Administration at (612) 992-2424**

ALLINA HEALTH SYSTEM

®Allina Health System

Visit the Allina CME Calendar at http://www.allina.com

# ERROR IN MEDICINE: What Have We Learned?

**We have the means to reduce many kinds of medical errors. But first, we must shift the responsibility for errors from individuals to systems.**



KEVIN SHORT/ILLUSTRATIONWORKS.COM

by David W. Bates, M.D., M.Sc., and Atul A. Gawande, M.D., M.P.H.

Over the past decade, it has become increasingly apparent that error in medicine is neither rare nor intractable. Traditionally, medicine has downplayed error as a negligible factor in complications from medical intervention. But, as data on the magnitude of error accumulate—and as the public learns more about them—medical leaders are taking the issue seriously. In particular, the recent publication of the Institute of Medicine report has resulted in an enormous increase in attention from the public, the government, and medical leadership.[1]

## Human Error in Medicine

Several books have been defining markers in this journey and highlight the issues that have emerged. Of particular note is "Human Error in Medicine," edited by Marilyn Sue Bogner,[2] published in 1994 (unfortunately, currently out of print) and written for those interested in error in medicine. Many of the thought leaders in the medical error field contributed chapters, and the contributions regarding human factors are especially strong. The book is a concise and clear introduction to the new paradigm of systems thinking in medical error.




In the foreword to this book, Reason provides in condensed form his thoughts about the evolution of theory on the nature of human error and accidents.[3] There has been a transformation in thinking and research about medical error and injury, much of which has used information from other industries. Conventionally, the single focus of both the medical profession and the medicolegal system has been on individual culpability for error. Other industries, however—especially high-risk industries such as aerospace and nuclear power—have produced enormous improvements by focusing on redesigning their systems to minimize human error. Reason, drawing from analysis of such disasters as the explosion of the space shuttle Challenger and the 1987 Kings Cross subway fire in London, observes that systems often contain "latent errors"—errors waiting to happen.[4] Safeguards, or "defenses," are often built in but are inadequate, so that a series of failures can easily align to produce disaster. As the extent of the problem of error in medicine has become more apparent, people both inside and outside medicine have begun to examine medicine's systems and processes with this kind of "human factors" thinking in mind.

In an early chapter of "Human Error in Medicine," Leape reviews the data from the Harvard Medical Practice Study.[5] This work was a landmark, in large part because it was the methodologically strongest study of its time to examine the epidemiology of iatrogenic injury. The study assessed a random sample of patients discharged from New York hospitals in 1984. Serious iatrogenic injury occurred in 3.7 percent of hospitalizations.[6] On the basis of these results, it was estimated that iatrogenic injury contributed to as many as 180,000 deaths annually in the United States.[7] This is four times the number of deaths caused by traffic accidents. Other industries have done much better; although airplane crashes get headlines, in 1998 no domestic airplane fatalities occurred in the United States. Nonfatal medical injuries resulting in disability or prolonged hospital stay occur in another 1.3 million U.S. patients per year.[7] Even though medical professionals conscientiously strive to avoid the "wrong mistake," two-thirds of medical injuries are estimated to be preventable under the prevailing standard of care.[7]

In the human factors section of the book, Cook and Woods discuss the difficulties that arise between the "sharp end," practitioners who actually care for patients, and those at the "dull end," persons who control many of the resources (for example, administrators).[8] They argue that although superficial analyses are often focused at the sharp end, dull-end factors are more important than generally appreciated and contribute critically to most accidents.

Later chapters examine how such thinking has been applied in anesthesia,[9,10] which has been the leading specialty in addressing error systematically. Helmreich and Schaefer[9] discuss data on the factors that influence team performance in the operating room and find that interpersonal and communications issues play a key role, although most organizations devote little or no resources to support training in human factors and human interventions. The authors suggest that more attention to the dull end could provide even better results; however, because of a variety of improvements, such as oxygen monitoring, anesthesia has registered the largest safety gains of any specialty. Gaba—one of the top researchers in this field—discusses the "chain of evolution of events" and how mistakes can often be recognized as such only in the context of a specific, dynamic, complicated situation.[10]

### The Quality Perspective

The link between the patient safety movement and the older, better-established quality improvement movement has often been uncertain: At times, the two groups have seemed to be entirely unaware of one another. Journalist Michael Millenson's highly acclaimed book, "Demanding Medical Excellence,"[11] published in 1997, shows how the two disciplines fit together. Quality, he argues, should be thought of as providing patients with the best possible medical care, and this requires continual progress not only at the highest levels of medical performance but also in shoring up the reliability and consistency of our most routine and basic tasks. While the book targeted the general public, most of those who have read it have some connection with medicine.

The problems of error in medicine are addressed in the chapter "First Do No Harm," and then prevention strategies are covered in "Saving Lives, Bit by Byte." Millenson begins by providing a history of the study of iatrogenic injury. He correctly points out that substantial data have been available for years. However, the publication of the results of the Harvard Medical Practice Study finally provided such detailed, incontrovertible evidence that the issue could no longer be ignored. In the prevention chapter, he argues that information technology could allow the provision of much safer care by linking disparate sources of medical knowledge and bringing them to clinicians at the time that clinicians need them. In particular, he puts special emphasis on routinely incorporating outcomes data. At times, Millen-

son can be too strident, and he does not get everything right—for example, he erroneously states that the Centers for Disease Control and Prevention has no definitions for iatrogenic infections—but this is perhaps the most readable, thorough discussion of the quality revolution in the popular press, and it should be required reading for physicians.

### Physicians' Reactions to Errors

Much of the new paradigm is far off from the way physicians usually manage error. Traditionally, physicians have had a fierce ethic of personal responsibility, seeing conscientiousness as the key attribute of a good physician and good medicine—not of well-designed medical systems. This comes across clearly in Marianne Paget's "The Unity of Mistakes: A Phenomenological Interpretation of Medical Work,"[12] published in 1988, which probed the psyche of physicians on this topic. Paget analyzes in-depth interviews with 40 physicians and explores how physicians think about their mistakes, as well as the psychological turmoil that physicians go through as they confront them. The book demonstrates how difficult and common serious mistakes are for physicians, how hard each physician works to avoid mistakes, and yet (although Paget herself does not make this point) how limited individual effort is. Almost everyone in medicine works hard to avoid mistakes, and there does not seem to be much more room for individual effort to improve matters. An alternative path to progress is needed.

### Medicine's Changing Approach to Error

The first Annenberg meeting in 1996—which focused on error in medicine and brought together a wide variety of disciplines—was a watershed event. Many of the chapter authors in Bogner's book, including Leape, Helmreich, and Cook and Woods, presented their view of the error "elephant." For the first time, error experts from all over the world, from both inside and outside medicine, convened in one place to discuss this issue. Many of the leading experts who participated were from different disciplines and had not previously met.

In subsequent years, as those studying error examined risk and latent error in medical systems by using perspectives that were new to many, the shortcomings of the current approaches became obvious. Most of the technologies and ways we do things in medicine were never designed with human limitations in mind. Indeed, most medical processes were never consciously designed at all; rather, they were built with a series of makeshift patches. Few such processes in medicine would not benefit from a substantial overhaul.

### Effective Prevention Strategies

Early on, drug errors were identified as the most common type of medical error, and numerous research groups have since succeeded in redesigning hospital pharmacy ordering and dispensing systems to markedly reduce the incidence of drug errors. For example, implementation of unit dosing reduced the frequency of medication errors by 82 percent in one study.[13] More recently, computerized physician order entry—in which physicians enter prescriptions online, where they can be checked for problems—was shown in a randomized trial to decrease the frequency of serious medication errors by 55 percent.[14] In addition, having a clinical pharmacist follow an intensive care unit team on hospital rounds was found to produce a 66 percent decrease in preventable adverse drug events.[15] Researchers are now applying the tools of error analysis and human factors engineering more widely—to everything from surgical care to ambulatory medicine. In the area of fall prevention, for example, Tinetti and colleagues[16] found that a multifactorial intervention to reduce the risk for falling among community-living elderly persons resulted in a decrease in risk for falling of almost one-third (incident rate ratio, 0.69), and the intervention appeared to be cost-effective.[17]

### The Industry Response

The health care industry has begun to mobilize to address these issues. The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) has altered investigations of major medical mishaps to focus not on blame and punishment of individuals but on root cause analysis. For example, after a Florida surgeon amputated a patient's wrong leg, the JCAHO identified that wrong-site surgeries occurred at a steady rate across the United States; they then developed process changes (marking the operative site while the patient is awake) to avoid the problem. The Institute for Healthcare Improvement has conducted several "breakthrough series" for large groups of health care organizations on medication errors and adverse drug events, which are intended to help hospitals learn effective strategies for preventing these events.[18] These series have resulted in important reductions in specific types of medication errors at many of the participating hospitals.

In addition, major organizations are increasingly focusing on this area. The American Medical Association established the National Patient Safety Foundation in 1997. A group that includes national leaders in medicine as well as error experts has been convening at the John F. Kennedy School of Government at Harvard University for "Executive Sessions on Medical Error and Patient Safety." The Massachusetts Medical Society has developed an error reporting and feedback system, a superb but underfunded program that could serve as a model for enlightened regulation (see page 12). Error reporting in this system is confidential and nonpersonal, and there is emphasis on getting hospitals to provide information about what changes they made in follow-up; in part because this medical society carries a "big stick," hospitals have been very responsive. And recently, the National Patient Safety Partnership was established, which includes government organizations, such as the Depart-

ment of Veterans Affairs, Department of Defense, and Health Care Financing Administration, as well as many private and professional organizations. The first activity of this group was to emphasize the importance to health care organizations of the "Y2K" problem; the second has been to put forward a list of medication "best practices."

### Where We Are Now

The sleeping giant has awoken. Both the public and purchasers are increasingly aware of the safety problems in medicine, and they are applying pressure. As a profession, we are at a crossroads. We have solid epidemiologic data to demonstrate that iatrogenic injury is a major problem. Leaders are now recognizing that the traditional response—that physicians do the best they can—is no longer enough. And medicine has an increasingly robust array of tools to improve the safety of care. Human factors and root cause analysis, in particular, offer ways to dissect individual accidents and understand why they occur.[19] Methods that have been effective at reducing error rates in other industries and appear applicable to medicine include simplifying, standardizing, reducing unnecessary reliance on memory, implementing forcing functions (reengineering a process to prevent a specific error, such as requiring a foot on the brake pedal to put a car in reverse), improving information access, reducing reliance on vigilance, and reducing the number of handoffs in the system.[18] Already, evidence suggests that these and other strategies can dramatically reduce certain types of error.

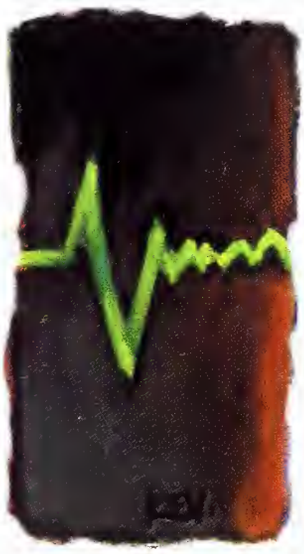


However, we are still only at the beginning. Although concrete measures for error reduction have been demonstrated, they have yet to be widely adopted. Moreover, the information that does exist relates to only a few specific areas, such as adverse drug events; even in this domain, the information largely is only from inpatient care. By and large, errors in medicine have gone unrecognized, unreported, and unanalyzed.

### Where We Go from Here

The first difficult step is making the transformation to seeing medical systems and processes, not individuals, as the critical source of most error. That requires moving away from a culture of fear about admitting error and blame,[20] and both the leadership and individuals within the systems must make this journey. When other industries have successfully made the leap, they have not abandoned the traditional ethic of personal responsibility but rather transformed it so that individuals take responsibility for reporting error and fostering improvements. This takes strong leadership and conviction. Yet, unless errors and accidents are tracked on a routine basis and then used to improve care, we will be condemned to repeat the mistakes of the past.

Another pivotal problem is that complications are persistently underestimated. No matter how protected individuals are, self-report is consistently unreliable. Chart review is effective but too expensive for routine use. There is some promise, however, that computerized event monitoring, in which a program sits over a database and looks for signals that an adverse event may have occurred, will offer an effective way of obtaining this information at a reasonable cost.[21-24] Such surveillance for nosocomial infections has been effective at reducing their incidence. Although to date such monitors have primarily been used to detect adverse drug events, they will undoubtedly be used more broadly in the future—tracking, for example, pneumothorax rates after thoracentesis, as well as patterns of surgical and bleeding complications.



Finally, progress will require overcoming significant organizational and financial obstacles. The task of reviewing existing medical practices using a systems approach is daunting enough—few medical processes would not benefit substantially from a "ground-up" overhaul. Success will require considerable effort to change organization, staffing, training, and technology, and although safer systems tend to save resources over time, at least a minimum initial investment will be required.[25] Unfortunately, during this turbulent time in medicine, severe financial pressures are forcing leaders to focus on short-term economic survival alone. As a result, safety is being left behind.

The traditional solution to this issue, which has had serious problems, is regulation by accrediting bodies such as the JCAHO. Although the JCAHO has substantially overhauled its approach to this issue and is now moving in a more optimal direction, it has lagged behind quality efforts in other areas, such as ISO 9000, a set of international quality standards. Other regulatory bodies, such as the state boards for professionals, still often take an absurdly punitive tack, a notable example being the State Board of Nursing in Massachusetts, which

*Where knowledge and practice interact*



# CONTINUING MEDICAL EDUCATIO

## Continuing Education and Extension, University of Minnesota

## Selected Courses, Late Summer–Fall, 2000

**Anticoagulation Clinics**
July 21 • Minneapolis

**Diabetes:**
**The Glucose Challenge**
July 26–27 • Minneapolis

**Lasers in**
**Cutaneous Surgery**
August 25–27 • Minneapolis

**Radiology**
**Refresher Course**
August 26–30 • Napa Valley, CA

**Endorectal**
**Ultrasonography**
September 5 • St. Paul

**Pelvic Floor Workshop**
September 6 • St. Paul

**Principles of Colon**
**and Rectal Surgery**
September 7–9 • Minneapolis

**Heart Failure Society**
**of America**
Sept. 10–13 • Boca Raton, FL

**Evaluation and Management**
**of Peripheral Vascular and**
**Cerebrovascular Disease**
September 21–22 • Minneapolis

**Mechanical Ventilation:**
**Principles and Applications**
September 23–26 • Minneapolis

**Psychiatry Review:**
**Mood Disorders**
October 2–3 • Minneapolis

**Emerging Infections in**
**Clinical Practice**
October 6 • Brooklyn Center

**Twin Cities Sports**
**Medicine Conference**
October 6–7 • Minneapolis

**Internal Medicine**
**Review**
October 11–13 • Minneapolis

**Obstetrics and**
**Gynecology**
October 23–24 • Minneapolis

**ET Bell Fall**
**Pathology Symposium**
November 3 • Minneapolis

**Long Term Care**
November 3–4 • St. Paul

**Radiology 2000**
November 9–11 • Minneapolis

**Cardiopulmonary**
**Exercise Testing**
November 11 • New Orleans

**Geriatric Psychiatry**
November 18 • Minneapolis

**Cord Blood**
**Symposium**
December 1 • San Francisco

**Health and Human Rights**
December 8 • Minneapolis

**Continuing Medical Education, Medical School, University College**
Radisson Hotel Metrodome, Suite 107, 615 Washington Avenue S.E., Minneapolis, MN 55414
612-626-7600, 1-800-776-8636, www.med.umn.edu/cme
The University of Minnesota is an equal opportunity educator and employer.

punished all 18 nurses who cared for a patient who suffered a chemotherapy overdose.

An alternative to regulation for stimulating health care organizations to improve the safety of the care they provide is for payers to provide financial incentives. The Medicare Payment Advisory Commission, for example, has suggested that the Health Care Financing Administration consider providing higher payment for institutions that implement systems that have been demonstrated to improve safety, such as physician order entry.[26] In addition, a group of the largest employers, dubbed the "Leapfrog Group," has banded together to drive quality forward;[27] this group is considering contracting preferentially or giving better rates to organizations that adopt recommendations documented to improve outcomes, with one of the first being computerized physician order entry in hospitals.

## Conclusion

It is evident that the status quo is no longer acceptable. Furthermore, we know much more about what to do about reducing the consequences of error than we did, although it is still not nearly enough. The next, painstaking task will be routinely measuring what we do, making the results publicly available, and then going through the systems of medicine, one at a time, and bringing them forward to the 21st century. MM

*David Bates is a physician in the Division of General Medicine and Primary Care at Brigham and Women's Hospital in Boston. Atul Gawande is a surgical resident in the Department of Surgery, Brigham and Women's Hospital.*

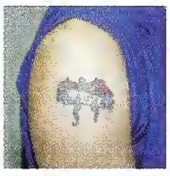
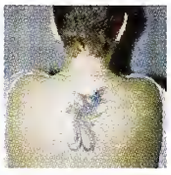
*© 1996-2000, American College of Physicians-American Society of Internal Medicine. All rights reserved.*

REFERENCES

1. Corrigan J, Kohn LT, Donaldson MS, eds. To err is human. Building a safer health system. Washington, D.C.: National Academy Pr, 2000.
2. Bogner MS, ed. Human error in medicine. Hillsdale, NJ: L. Erlbaum Associates, 1994.
3. Reason JT. Foreword. In: Bogner MS, ed. Human error in medicine. Hillsdale, NJ: L. Erlbaum Associates, 1994:vii-xv.
4. Reason JT. Human error. Cambridge, England: Cambridge University Press, 1990.
5. Leape LL. The preventability of medical injury. In: Bogner MS, ed. Human error in medicine. Hillsdale, NJ: L. Erlbaum Associates, 1994:13-25.
6. Brennan TA, Leape LL, Laird NM, et al. Incidence of adverse events and negligence in hospitalized patients. Results from the Harvard Medical Practice Study I. N Engl J Med 1991;324:370-6.
7. Leape LL, Lawthers AG, Brennan TA, Johnson WG. Preventing medical injury. QRB Qual Rev Bull 1993;19:144-9.
8. Cook R, Woods D. Operating at the sharp end: the complexity of human error. In: Bogner MS, ed. Human error in medicine. Hillsdale, NJ: L. Erlbaum Associates, 1994:255-310.
9. Helmreich RL, Schaefer HG. Team performance in the operating room. In: Bogner MS, ed. Human error in medicine. Hillsdale, NJ: L. Erlbaum Associates, 1994:225-54.
10. Gaba DM. Human error in dynamic medical domains. In: Bogner MS, ed. Human error in medicine. Hillsdale, NJ: L. Erlbaum Associates, 1994:197-224.
11. Millenson ML. Demanding medical excellence. Chicago: University of Chicago Press, 1997.
12. Paget MA. The unity of mistakes. Philadelphia: Temple University Press, 1988.
13. Simborg DW, Derewicz HJ. A highly automated hospital medication system. Five years' experience and evaluation. Ann Intern Med 1975;83:342-6.
14. Bates DW, Leape LL, Cullen DJ, et al. Effect of computerized physician order entry and a team intervention on prevention of serious medication errors. JAMA 1998;280:1311-6.
15. Leape LL, Cullen DJ, Clapp MD, et al. Pharmacist participation on physician rounds and adverse drug events in the intensive care unit. JAMA 1999;282:267-70.
16. Tinetti ME, Baker DI, McAvay G, et al. A multifactorial intervention to reduce the risk of falling among elderly people living in the community. N Engl J Med 1994;331:821-7.
17. Rizzo JA, Baker DI, McAvay G, Tinetti ME. The cost-effectiveness of a multifactorial targeted prevention program for falls among community elderly persons. Med Care 1996; 34: 954-69.
18. Leape LL, Kabcenell AI, Berwick DM. Reducing adverse drug events. Boston: Institute for Healthcare Improvement, 1998.
19. Leape LL. Error in medicine. JAMA 1994;272:1851-7.
20. Kraman 55, Hamm G. Risk management: extreme honesty may be the best policy. Ann Intern Med 1999;131:963-7.
21. Classen DC, Pestotnik SL, Evans RS, Burke JP. Computerized surveillance of adverse drug events in hospital patients. JAMA 1991;266:2847-51.
22. Jha AK, Kuperman GJ, Teich JM, et al. Identifying adverse drug events: development of a computer-based monitor and comparison with chart review and stimulated voluntary report. J Am Med Inform Assoc 1998;5:305-14.
23. Koch KE. Use of standardized screening procedures to identify adverse drug reactions. Am J Hosp Pharm 1990;47:1314-20.
24. Honigman B, Bates DW, Light P. Computerized data mining for adverse drug events in an outpatient setting [Abstract]. Proceedings of the American Medical Informatics Fall Symposium; November 7-11, 1998, Orlando, Florida. Philadelphia: Hanley & Belfus, 1998:1018.
25. Teich JM, Glaser JP, Beckley RF, et al. Toward cost-effective, quality care; the Brigham Integrated Computing System. 2nd Nicholas E. Davies CPR Recognition Symposium. 1996:3.
26. The Medicare Payment Advisory Commission. Report to the Congress. Selected Medicare Issues. Washington, D.C., 1999.
27. Bodenheimer T. The American health care system—the movement for improved quality in health care. N Engl J Med 1999;340:488-92.

# Tattoos: Their Relationship to Trauma, Psychopathology, and Other Myths

J. Kenneth Rooks, M.D., David J. Roberts, M.D., and Karen Scheltema, M.A., M.S.



ABSTRACT

**Objective:** The purpose of this study was to examine the relationship between tattoos and reason for presentation to a community hospital emergency department (ED): injury, illness, or a psychiatric/chemical dependency problem. In addition, to assess contemporary beliefs about tattoos, ED staff and patients were surveyed about their attitudes toward and personal experience with tattoos. Demographic characteristics of participants also were evaluated relative to tattoos.

**Methods:** All patients seen in the ED during two 24-hour periods in winter 1999 were surveyed about tattoos in a personal interview. Hospital staff who regularly interact with ED patients were asked the same questions. Data were collected on 294 patients and 289 staff members. Diagnoses were recorded for all patients, then coded as an injury, illness, or psychiatric/chemical dependency complaint.

**Results:** In the 16–35 years age group, 35% of patients and 19% of staff had tattoos. In the 36–50 years age group, 28% of patients and 11% of staff had tattoos, and the 51–65 group had similar percentages: 6% of patients and 5% of staff had tattoos. Having a tattoo was not related to presenting complaint. Age was a significant predictor of attitudes regarding tattoos: Younger people had a more positive attitude. Significantly more smokers (31%) than nonsmokers (13%) had tattoos. Education was negatively related to having a tattoo. Gender was not significantly related to having a tattoo or to the number of tattoos a person had.

**Conclusion:** A surprisingly large percentage of young patients presenting to the ED had tattoos. No relationship was found between having a tattoo and nature of chief complaint.

Tattoos have a long and colorful history dating back thousands of years. They have even been found on Egyptian mummies. In North America, many European explorers documented the tattooing practices of Native Americans. Tattooing has been widespread among Asian peoples and Pacific Islanders as well.[1] Only recently have tattoos been associated with risk taking, deviant behavior, and psychiatric illness.[2-6]

In the late 1960s and early 1970s, several publications linked tattoos to psychiatric illness and criminal behavior. Tattooed men were reported to have psychopathic disorder at twice the rate of their non-tattooed counterparts, and those with 10 or more tattoos were almost certain to have the disorder.[2] Sailors with tattoos were found to be "more maladjusted."[2] Those with tattoos such as "Death Before Dishonor" tended to receive less than honorable military discharges.[3] Tattooed women were found to be more masculine, aggressive, and involved in criminal activity.[4-6] In Britain, illegal activity increased with the number and visibility of the tattoos. Criminal activity was inversely correlated with the age at which an individual first received a tattoo—the younger, the higher the incidence of criminal activity.[7]

From the mid-1970s through the 1980s, further studies seemed to confirm the relationship between tattoos and deviance and psychological disorders. Tattooed girls had more psychosexual and emotional problems, in addition to involvement in criminal activity.[8] Self-mutilation, antisocial personality disorder, social instability, and use of a gun for suicide were associated with tattoos.[9-11]

From the late 1980s to the present, studies have focused on risk-taking behavior and motivation for tattooing. Among drug users with tattoos, HIV-1 infection rate was more than four times higher than in users without tattoos. The divorce rate also was higher among couples in which at least one spouse had a tattoo; and, when a divorce occurred, the children were more likely to live with the non-tattooed parent.[12] Two of the more popular reasons for tattooing were to show allegiance to a group and to express individuality.[13,14]

Unfortunately, much of the research to date has focused largely on subpopulations such as inmates, drug users, military personnel, and psychiatric inpatients.[2,3,7-10,12,15] In addition, many of the studies are old and may not represent people with tattoos today.

Tattoos are growing in popularity and are no longer associated only with bikers and sailors. An estimated 20 million Americans, many of whom are "soccer moms" and others considered average Americans, have tattoos.[16] It is unlikely that one can watch an NBA basketball game today without noticing a player with a tattoo. Many younger athletes are using tattoos to express their individuality, to make political statements, to commemorate lost loved ones, and

*Photographs by William Babb, P.A., and David Roberts, M.D.*

as a source of inspiration.[17]

Because of the recent introduction of tattoos into mainstream culture and the flaws of past studies, it is likely that many of the imputed associations between tattoos and deviancy no longer exist. This study of emergency department patients and staff examines the relationship between tattoos and presenting complaint at an ED. It also compares tattoo prevalence among staff and patients and examines attitudes toward tattoos. Last, it explores factors that are associated with having a tattoo.

## Materials and Methods

All patients seen in the emergency department (ED) at a suburban community teaching hospital during two 24-hour periods (one weekday and one weekend) in winter 1999 were approached for this study. North Memorial Medical Center is located in Robbinsdale, Minnesota, and has a service area population of 89% white, 6% black, 3% Asian, and 1% Hispanic, with a median household income of $44,153. Of 304 patients seen, 10 refused participation. Twenty-one patients were unable to respond and 65 patients were under age 16; for these two groups, only the number and location of tattoos were recorded. For the other patients and staff, additional tattoo data were collected, including attitudes toward tattoos (positive, neutral, or negative). Smoking status also was recorded. Participants with tattoos were also asked specific questions about their tattoos. Thus, we have basic data on tattoos for 294 patients, and demographic and more detailed tattoo data for 229 patients. Diagnoses were recorded for all patients, who were then coded as having an illness, injury, and/or a psychiatric/chemical dependency problem.

In addition, hospital staff who regularly interact with emergency department patients and who worked during the two survey days were interviewed about their own tattoos and their attitudes toward tattoos. These staff members included emergency physicians, nurses, security officers, crisis intervention workers, EMTs/nursing assistants, medical secretaries, admitting staff, radiology staff, trauma surgeons, trauma nurse clinicians, and paramedics. Of 307 eligible staff, 289 were interviewed; all had consented to participate in the study. Staff members were asked the same questions as patient participants.

Although the two samples showed a negligible difference in mean age (38.2 years for patients vs. 40.2 years for staff; 95% CI for mean difference =-1.20, 5.19), their age distributions were very different (see Table 1). As a result, all analyses comparing patients and staff were age-stratified or risk-adjusted.

This study was approved by the hospital's Institutional Review Committee. Verbal consent was obtained from all staff members and each patient or a responsible family member if the patient was unable to give consent or was under age 18.

## Results

Table 2 (page 26) shows the percentage of participants within each age group who had tattoos. In the 16–35 age group, patients had significantly more tattoos than did staff ($X^2$ (1)=5.71, p=.021). Patients in the 36–50 age group also had significantly more tattoos than staff in the same group ($X^2$ (1)=8.51, p=.004). There was no significant difference in tattoo prevalence between hospital patients and staff in the 51–65 age group ($X^2$(1)=.01, p=.934). No patients older than 65 had tattoos.

In the patient sample, having a tattoo was not significantly related to a presenting complaint of injury for any age group (16–35 years: $X^2$ (1)=1.35, p=.245; 36–50 years: $X^2$(1)=.33, p=.565; 51–65 years: Fisher exact test p=1.00), or for all age groups combined ($X^2$(1)=1.50, p=.220). In addition, having a tattoo was not related to psychiatric/chemical dependency issues in any of the age groups (16–35 years: Fisher exact test, p=.285; 36–50 years: Fisher exact test p=1.00; 51–65 years: Fisher exact test p=.262) or in the overall patient sample (Fisher exact test, p=.529). Finally, having a tattoo was not significantly related to a presenting complaint of illness in any of the age groups (16–35 years old: $X^2$ (1)=1.35, p=.245; 36–50 years old: $X^2$(1)=.47, p=.492; 51–65 years: Fisher exact test p=1.00) or in the overall sample ($X^2$ (1)=2.47, p=.116).

Table 1

*Age Distribution of Sample*

| Age | Patient (n) | Staff (n) |
|---|---|---|
| <16 | 22% (65) | 0% (0) |
| 16-35 | 27% (80) | 35% (99) |
| 35-50 | 18% (54) | 51% (146) |
| 51-65 | 12% (26) | 14% (39) |
| 66+ | 20% (58) | 1% (2) |
| total | 293* | 286* |

*Three staff members and one patient declined to give their age.

Logistic regression was used to determine whether age, having a tattoo, and status as patient or staff predicted attitudes toward tattoos in the 16–65 age group (those older than 65 were not used in this analysis because this age category included only two staff). Age was a significant predictor, with the 36–50 age group slightly less likely to have positive attitudes than the 16–35 age group (12% vs. 21%; $X^2$ (1)=2.88, p=.090), and the 51–65 age group significantly less likely to have positive attitudes toward tattoos than the 16–35 age group (1% vs. 21%; $X^2$ (1)=6.94, p=.008). There was a significant interaction between having a tattoo and staff or patient status ($X^2$ (1)= 4.38, p=.036). Staff with tattoos were the most likely to report positive attitudes (42%), followed by patients with tattoos (22%). Similar percentages of staff (9%) and patients (11%) without tattoos reported positive attitudes. Because of small cell sizes, the interaction between age and status as patient or staff could not be tested.

Logistic regression also was used to examine whether gender, education, and tobacco use were related to having a tattoo when age group and patient or staff status was controlled. Tobacco use showed a statistically significant, positive relationship with

Table 2

*Study Participants with Tattoos, by Age*

| Age | Patient (n) | Staff (n) |
|---|---|---|
| <16 | 3% (2) | n/a |
| 16-35 | 35% (28) | 19% (19) |
| 35-50 | 28% (15) | 11% (16) |
| 51-65 | 6% (2) | 5% (2) |
| 66+ | 0% | 0% |

having a tattoo (31% of smokers had tattoos vs. 13% of nonsmokers; $X^2$ (1)=9.37, p=.002). Education was significantly and negatively related to having a tattoo ($X^2$(1)=4.80, p=.029); higher education was associated with less likelihood of having a tattoo. Gender was not significantly related to having a tattoo ($X^2$ (1)=.32, p=.570).

Although similar numbers of males and females were tattooed, gender differences were observed. The most common locations of tattoos in females were the lower leg (21%) and the shoulder (20%). The most common locations of tattoos in males were the upper arm (52%), the forearm (30%), and the shoulder (27%). Staff and patients chose similar locations. In the 16–35 age group, females were significantly older when they got their first tattoo than males (21.1 vs. 17.9; t (44)=2.23, p=.031). In the 36–50 age group, females obtained their first tattoo at a slighter older age than males (28.9 vs 21.0; t(29)=1.88, p=.070). Because the 51–65 age group contained only four people, no comparisons by gender were made. Women and men who had tattoos did not differ significantly in number of tattoos (t (82)=1.37, p=.173).

Attitudes of patients and staff with tattoos were also compared. Staff were significantly more likely than patients to say they were happy with their tattoos (91% vs. 68%; $X^2$ (1)= 6.24, p=.013). Staff and patients showed no significant difference in desire to have their tattoos removed (3% vs. 5%; Fisher exact test p= 1.00). A sizable percentage of study participants with tattoos indicated that they wanted more; staff and patients did not show a significant difference in this preference (44% vs. 32%; $X^2$ (1)=1.35, p=.246). Similarly, staff and patients did not differ significantly in rate of complications (unexpected pain, infection, or allergic reaction) from tattoos (11% vs. 16%; $X^2$(1)=.33, p=.568). More than a third of those with tattoos reported that another person had reacted negatively to their tattoos; staff and patients did not differ significantly in this percentage (47% vs. 36%; $X^2$ (1)=.96, p=.326).

## Discussion

In 1990, a reported 3% of the U.S. population had tattoos.[18] In our study, a surprising 35% of patients in the 16–35 age group had at least one tattoo, as did 19% of hospital staff in that same age group. In the 36–50 age group, 28% of patients and 11% of staff had tattoos. Our results indicate that in these younger age groups, tattooing is more prevalent than previously thought. This may reflect the growing popularity of tattoos. Alternatively, our ED samples may not accurately represent the larger society. It is important to note that we conducted this study in an ED in a suburb where the median household income is $44,000. The median household income in the United States is $37,005 according to the U.S. Census Bureau 1999 report.

Tattooed and non-tattooed patients did not differ significantly in their presenting complaints (injury vs. illness vs. psychiatric/chemical dependency problem). Many previous studies reported increased risk taking and psychiatric disorder/chemical dependency in patients with tattoos.[2-11] If the trends noted in the older literature continued today, we would expect to see a higher percentage of tattooed patients presenting with injuries and psychiatric/chemical dependency issues.

Although the percentages of tattooed and non-tattooed patients seeking medical care did not differ significantly by presenting complaint, tobacco use showed a statistically significant positive correlation with having a tattoo (31% of smokers vs. 13% of nonsmokers had tattoos). Of the patients who had tattoos, 63% smoked compared with 28% of patients without tattoos. The higher smoking rate for tattooed people implies a less healthy lifestyle that could eventually lead to more illness, and more visits to the ED. Following this logic, individuals with tattoos who are also risk takers and have more psychiatric disorders also should present more often to the ED. While their presenting complaints may be similar to those of non-tattooed patients, the absolute number of ED visits may be higher.

A limitation of our study is that we obtained the percentage and not the total number of visits over a period of time for presentation with trauma, illness, or psychiatric problems. A future study using a prospective design to obtain absolute number of visits for particular problems over a year would help clarify this issue. Another option would be to study the prevalence of tattoos in a community, comparing patients and nonpatients.

Younger study participants were more likely to express positive attitudes toward tattoos, regardless of patient/staff status. When age groups were combined, attitudes did not differ significantly between patients and staff. However, staff with tattoos reported much more positive feelings toward tattoos than non-tattooed staff, while staff without tattoos had the least positive attitudes. These results may reflect the growing popularity—and acceptance—of tattoos today. Many respondents who described their attitude toward tattoos as neutral commented that they disapproved of multiple tattoos, gang-related tattoos, or tattoos with negative messages. Some respondents may have expressed neutrality to avoid appearing prejudiced in a face-to-face interview, another possible limitation of the study. Attitude of health care providers toward tattoos or tattooed patients is important because it can negatively impact patient care.[19]

The prevalence of tattoos in the United States in 1983 was reported to be 9% in males and 1% in females.[20] Surprisingly, in our study gender was not significantly related to having a tattoo, again showing that

the older studies do not reflect current trends. Location of the tattoo on the body differed by gender; females preferred the lower leg while males preferred the upper arm. Females in general sought tattoos at an older age than males, while the number of tattoos did not differ by gender.

The majority of both ED staff and patients were happy with their tattoos, with the staff rate significantly higher (91%) than the rate for patients (68%). Few participants wished to have a tattoo removed (3% of staff and 5% of patients), while a sizable percentage wanted more tattoos (44% of staff and 32% of patients). Although most were happy with their tattoos, more than a third of subjects reported at least one instance of receiving a negative personal reaction to their tattoo.

Physicians should be aware that tattooing can lead to several complications, including local bacterial infections, allergic reactions, unexpected pain,[20,21] and rarely, viral infections (hepatitis, HIV). In our study, 11% of staff and 16% of patients with tattoos reported one or more of these complications. Malignant melanoma and systemic sarcoidosis presenting within a tattoo have been reported, as well as toxic shock syndrome presumably resulting from a tattoo.[22-24] Physicians should be aware that an interaction between MRI and tattoo pigments is possible, causing patients to experience pain.[25,26]

## Conclusions

A large percentage of young patients presenting to a community hospital ED had tattoos, consistent with the rising popularity of tattoos society-wide. Regardless of the age of patients, their presenting complaints were not related to whether they had a tattoo. Tattooed patients were no more likely than non-tattooed patients to present with an injury, illness, or psychiatric/chemical dependency problem. This study did not support the long-assumed relationship of tattoos to risk taking (as measured by rate of injury) or deviant behavior, although tattoos were correlated with smoking. Tattoos are surprisingly popular among young health professionals, an occupational group even less likely to fit traditional tattoo stereotypes.

Non-tattooed hospital staff were the least likely to express a positive attitude toward tattoos or tattooed patients. Therefore, they may need to guard against misjudging or discriminating against patients with tattoos, because negative attitudes may alienate patients and compromise their care.

A large body of old medical literature has stigmatized people with tattoos, and many negative stereotypes have persisted. As tattoos make their mark on more Minnesotans, it is increasingly important for physicians to recognize tattoos as body art rather than social stigma. MM

*J. Kenneth Rooks is an emergency medicine resident at Hennepin County Medical Center in Minneapolis. David J. Roberts is a staff emergency physician in the Department of Emergency Medicine at North Memorial Medical Center in Robbinsdale. Karen Scheltema is a statistician in Quality Resources at North Memorial Medical Center.*

### *Acknowledgments*

The authors wish to thank the following individuals for their assistance in collecting the data: Mancel Mitchell, M.D., Jody Sims, M.D., Rod Thompson, M.D., Martha Waddell, M.D.

### REFERENCES

1. Ferguson J, Procter L. The art of the tattoo. Philadelphia: Courage Books, 1998.
2. McKerracher DW, Watson RA. Tattoo marks and behavior disorders. Br J Criminol 1969;9(2):167-72.
3. Post RS. The relationship of tattoos to personality disorders. J Criminal Law Criminol Police Sci 1968;59(4):516-24.
4. Taylor AJ. Tattooing among male and female offenders of different ages in different types of institutions. Genet Psychol Monogr 1970;81(1):81-119.
5. Gilder SS. Tattooed ladies. Can Med Assoc J 1968;98(25):1203.
6. Taylor AJ. A search among borstal girls for the psychological and social significance of their tattoos. Br J Criminol 1968;8(2):170-85.
7. Gittleson NL, Wallen, GD, Dawson-Butterworth K. The tattooed psychiatric patient. Br J Psychiatry 1969;115(528):1249-53.
8. Taylor AJ. Criminal tattoos. Int Rev Appl Psychol 1974;23(2):121-30.
9. Virkkunen M. Self-mutilation in antisocial personality (disorder). Acta Psychiatr Scand 1976;54(5):347-52.
10. Buhrich N. Significance of tattoos in narcotic abusers. Drug Alcohol Depend 1983;11(3-4):389-94.
11. Lester D. Tattoos, eye color and method for suicide. Activitas Nervosa Superior 1986;28(3):239-40.
12. Loimer N, Werner E. Tattooing and high-risk behavior among drug addicts. Med Law 1992;11(3-4):167-74.
13. Coe K, Harmon MP, Verner B, et al. Tattoos and male alliances. Hum Nat 1993;4(2):199-204.
14. Armstrong ML. Career-oriented women with tattoos. Image J Nurs Sch 1991;23(4):215-20.
15. Harry B. Tattoos, body experience, and body image boundary among violent offenders. Bull Am Acad Psychiatry Law 1987;15(2):171-8.
16. Keatining-Zuma R, Cabluck H, McEzhinney S, et al. Let's hope it outlasts leg warmers. Newsweek June 21,1999:10.
17. Montgomery A. Wearing feelings as their sleeves; NBA players are inking a lot more than big financial deals. USA Today June 16, 1999;3D.
18. Anderson RR. Tattooing should be regulated. N Engl J Med 1992;326(3):207.
19. Stuppy DJ, Armstrong ML, Casals-Ariet C. Attitudes of health care providers and students toward tattooed people. J Adv Nursing 1998;27:1165-70.
20. Long GE, Rickman LS. Infectious complications of tattoos. Clin Infect Dis 1994;18(4):610-19.
21. Duke D, Urioste SS, Dover JS, et al. A reaction to a red lip cosmetic tattoo. J Am Acad Dermatol 1998;39(3):488-90.
22. Soroush V, Gurevitch AW, Peng SK. Malignant melanoma in a tattoo: case report and review of the literature. Cutis 1997;59(3):111-12.
23. Jones MS, Maloney ME, Helm KF. Systemic sarcoidosis presenting in the black dye of a tattoo. Cutis 1997;59(3):113-15.
24. Cowan RK, Martens MG. Toxic shock syndrome mimicking pelvic inflammatory disease presumably resulting from tattoo. South Med J 1993;86(12):1427-31.
25. Kreidstein ML, Giguere D, Freiberg A. MRI interaction with tattoo pigments: case report, pathophysiology, and management. Plast Reconstr Surg 1997;99(6):1717-20.
26. Carr JJ. Danger in performing MR imaging on women who have tattooed eyeliner or similar types of permanent cosmetic injections. Am J Roentgenol 1995;165(6):1546-7.

Morning mist?



Forest fire?

UNCOMMON WISDOM
COMMON SENSE℠

*From a distance, a seemingly routine health law issue can become hazy to the untrained eye. At Leonard, Street and Deinard, we take a close look at every possible outcome, keep our clients fully informed, and respond quickly with a proactive course of action. We think that's not only smart; it's good common sense.*

LEONARD
STREET
AND
DEINARD

MINNEAPOLIS · SAINT PAUL · MANKATO
(612) 335-1825 www.leonard.com



ALEXANDRIA CLINIC, P.A.

The Alexandria Clinic, P.A., is a 32-physician multi-specialty group currently recruiting additional physicians in the following specialties:

ENT

First-year salary guarantee with production bonus, second-year partnership. Excellent contract benefits. If interested in joining a young, growing organization located in beautiful lakes area community, please contact:

Administrator
Alexandria Clinic, P.A.
610 30th Ave. W., Alexandria, MN 56308
320•763•5123
email: admin@alexclinic.com

Check out our website at www.alexclinic.com

***Dermatology, General Surgery, Internal Medicine, Neurology and Pediatrics***

There are immediate openings at Brainerd Medical Center for the following specialties: Dermatology, General Surgery, Internal Medicine, Neurology, and Pediatrics.

**Brainerd Medical Center, P.A.**

- 41-Physician independent multi-specialty group
- Located in a primary service area of 50,000 people
- Almost 100% fee-for-service
- Excellent fringe benefits
- Competitive compensation
- Exceptional services available at 162-bed local hospital, St. Joseph's Medical Center

**Brainerd, Minnesota**

- Surrounded by the premier lakes of Minnesota
- Located in central Minnesota less than 2½ hours from the Twin Cities, Duluth and Fargo
- Large, very progressive school district
- Great community for families

**Call collect to Administrator:**
Curt Nielsen
(218) 828-7105 or (218) 829-4901
2024 South 6th Street
Brainerd, MN 56401
email: bmc@brainerd.net
internet:www.brainerdmedicalcenter.com

# Managing Risk

*Medication errors and missed breast cancer top the list of litigated medical mistakes. Here's what physicians can do to protect their patients—and themselves.*

Debra McBride, R.N., J.D.

Medical errors. Medical malpractice. Negligence. Lawsuit. These are words physicians never want to hear in connection with their patients or practice. Physicians work hard to make sick people well and keep healthy people healthy and often wonder how to differentiate a bad outcome from malpractice. There are no easy answers, but data from malpractice claims reveal useful information.

Many physicians believe malpractice claims arise primarily from disgruntled or greedy patients, spurred by attorneys. However, financial incentives account for only a tiny fraction of the reasons why patients bring malpractice claims.[1] The No. 1 reason for malpractice claims against physicians is departure from accepted standards of care, directly resulting in harm to the patient. This is the very definition of medical malpractice. According to data from the Physician Insurers Association of America (PIAA), breach of the standard of care leads to the vast majority of claims against physicians.[2]

Malpractice claims are categorized by frequency (how often an allegation is made against physicians) and severity (how expensive the claims are to resolve). While less than 30 percent of Midwest Medical Insurance Company's malpractice claims actually result in any payment to a patient, certain claim areas generate higher payment percentages. The liability trends in Minnesota correspond closely with those identified nationwide by the PIAA.

## *Common Medical Errors*

Both the media and the public have focused their attention on recent studies of the rate of "medical errors." Claim data collected regionally by MMIC and nationally by the PIAA reflect elements identified in those studies. Two claim areas continue to dominate the findings: medication errors and failure to diagnose breast cancer. Each of these areas has a higher-than-average ratio of paid claims. Better risk management could significantly reduce claims.

### Medication errors

Inappropriate medication management poses a serious malpractice risk and threat to patient safety. Malpractice claims for medication errors cross all specialties and can be filed against any physician providing direct patient care. The potential for error is tremendous whenever a physician prescribes medication, whether in a clinic or a hospital.

The liability trends show medication error claims are increasing both in frequency and severity. The PIAA reports that nationwide between 1985 and 1999, more than 10,000 medication error claims were closed. Payment was made to the patient in 36 percent of the claims, for a total of more than $461 million. MMIC has paid more than $8 million for these claims in the same period. Medication error claims tend to result from serious, permanent injuries or death.

What causes medication errors? Nurses or pharmacists are often blamed for medication mistakes. The fact is, physicians make the overwhelming majority of medication errors. However, mistakes at any point in the process of prescribing, transcribing, dispensing, administering, or monitoring medications can result in patient injuries. A common cause of medication errors is an unclear or ambiguous order that unleashes a series of mistakes. If the initial prescription is not clear, or is incorrectly transcribed, the wrong medication may be dispensed and administered.

Many factors can contribute to unclear medication orders: Illegible physician handwriting is a major factor in malpractice claims. Not indicating why the drug is needed and ambiguous dosages are other factors that contribute to patient injuries. For example, the drugs Zyrtec (an antihistamine) and Zyprexa (an antipsychotic) have been confused because of illegible prescriptions. Unfortunately, both are given in a single daily oral dose, are available in 5 mg and 10 mg tablets that are white and film-coated, and have a similar 5- to 10-mg dosage range. Physicians could help prevent this mix-up by indicating the drug's use (e.g., for allergies).

Drug names that sound alike or are spelled similarly contribute to medication errors. Cerebyx and Celebrex or Imferon and Interferon, for example, could be easily confused if

# Opening the National Practitioner Data Bank
## *Good Idea or Bad Public Policy?*

Christina F. Rich, J.D.

The Institute of Medicine's report on medical errors that was released last fall prompted considerable discussion about whether physician information contained in the National Practitioner Data Bank (NPDB) ought to be made available to the public. The data bank contains federally mandated reports about adverse actions taken against a physician, including licensure actions, adverse clinical privileges actions, and adverse professional society membership actions as well as information about malpractice settlements and verdicts. Information from the NPDB is available to state licensing boards, hospitals and other health care entities, professional societies, certain federal agencies, and others as specified in the law to provide information about the professional competence and conduct of physicians, dentists, and, in some cases, other health care practitioners. Practitioners may query the NPDB regarding their records at any time.

Congress created the NPDB in the Health Care Quality Improvement Act of 1986 with the intent of improving the quality of health care by encouraging hospitals, state licensing boards, and other health care entities to identify and discipline those who engage in unprofessional behavior and to restrict the ability of incompetent physicians, dentists, and other health care practitioners to move from state to state without disclosure or discovery of previous damaging or incompetent performance. Hospitals are the only health care entities required by federal law to query the NPDB, although clinics and health plans frequently use the data bank when deciding whether to credential a particular physician.

Arguably, the contents of the data bank, including the listings of malpractice payments and disciplinary actions against physicians and dentists, were never intended to be open to the public. The data were intended for use by hospitals, state licensing boards, and others, in the context of other information, when making credentialing decisions. The Institute of Medicine report itself does not recommend making NPDB information available to the public. In fact, the report recommends that Congress pass legislation extending existing peer review protections to data related to patient safety that are collected by health care organizations. Nonetheless, bills have been introduced in Congress to open the data bank to the public. Numerous health care–related organizations, including the Joint Commission on Accreditation of Healthcare Organizations, the American Medical Association, the American Hospital Association, and the American Health Quality Association, oppose the idea of public access to the data bank. Additionally, some government agencies have expressed concern about such a change. In a letter to Rep. Thomas Bliley (R-Va.) on a data bank–related issue, the U.S. Department of Health and Human Services reminded the congressman about the importance of keeping data bank information confidential.

Part of the problem with making the NPDB accessible to the public is that approximately three-quarters of the data bank information concerns malpractice payments, a standard that can be unreliable in separating good doctors from bad ones. Perhaps a physician is in a high-risk specialty or is willing to take on high-risk patients. A payment might have been made to settle a nuisance suit, or an insurer may even have entered into a settlement against the doctor's objections. Another problem is the one-sidedness of the information. For example, data bank entries do not contain information about education, training, board certification, or accomplishments of physicians. The fact that the data bank was not created for public access certainly leads to questions about whether such access would serve the public well or create unnecessary confusion and increase frivolous malpractice claims.

The American Medical Association testified in Congress against releasing data bank information to the public. The AMA suggested programs run by state medical boards and even by some private-sector organizations are the best method for releasing physician information. It is on the state medical board level, the AMA asserts, that all licensure and most professional discipline occurs anyway. These entities are in the best position to collect and report that information in a balanced and useful way.

Regardless of the outcome, this issue will likely continue to fuel strenuous debate at the federal level in the coming months.

*Christina Rich is director of health law for the Minnesota Medical Association.*

scrawled quickly onto a prescription form or ordered orally.

Dosage errors also cause patient injuries. Misread or misplaced decimals can result in a tenfold overdose. An unclear volume order, such as "two of Stadol," might lead to the inappropriate administration of two vials of Stadol rather than two milligrams. Dosage errors occur both in written and oral orders, particularly if staff are unfamiliar with the drug prescribed.

Each person involved in the dispensing of medication can control and minimize medication errors. To protect patient safety and eliminate medication errors, MMIC recommends several approaches:

- Establish double-check systems to prevent unclear orders, to flag patient allergies, and to monitor drug reactions.
- Implement and enforce policies regarding prescribing, transcribing, administering, and monitoring patient medications.
- Consider a computerized or electronic prescribing system, which can eliminate illegible orders and alert physicians to drug-drug interactions and contraindications.
- Carefully evaluate the roles clinic staff play in medication management and establish regular competency testing for all involved personnel.
- Educate physicians and clinical staff about the incidence of errors in the facility and what safeguards are in place.
- Provide patients with adequate information about new medications, including the dose prescribed and the reasons for use.

Education is critical to preventing errors. On the provider side, physicians and staff need to know that medication errors can occur in any facility and at any step in the process. Your malpractice liability carrier is a good source for physician and staff education on preventing medication errors. On the patient side, ensure that education at the patient encounter is not overlooked. Giving patients adequate information about their medications can help prevent mishaps.

### Case examples:

A 65-year-old woman was taking two medications with different names, one from her family practitioner and one from her cardiologist. She died from taking double doses of the same medication manufactured by two different companies.

A patient was allergic to penicillin, but the allergy was erroneously noted on his son's chart instead. The patient was given Augmentin. He did not recognize it as a penicillin derivative and had a severe reaction.

A 31-year-old woman was seen for a breast lump, and her family physician instructed her to return in three months for a recheck and a mammogram. When she returned, the lump was still present, but she did not schedule a mammogram and the clinic did not follow up. Eighteen months later she presented with lumps in her armpit; she was diagnosed with invasive ductal carcinoma.

## Missed breast cancers

A second major malpractice claim area is failure to diagnose breast cancer. PIAA data show that these claims are both frequent and severe. Nationwide, between 1985 and 1999 more than 3,150 claims were closed with nearly 42 percent of them resulting in payment to the patient.[2] This translates to more than $275 million paid out for missed breast cancer diagnoses. MMIC paid more than $5 million in the same period.

Practitioners from many specialties—family practice, ob/gyn, radiology, internal medicine, pathology, and surgery—may fail to diagnose breast cancer. And this failure is the No. 1 reason for claims against radiologists nationwide and in Minnesota.

According to a study[3] by the PIAA in 1995, the diagnosis was missed most often in young patients—more than 60 percent were younger than age 50—who presented with a painless, self-discovered mass and who had a negative or equivocal mammogram. Breast cancer was present in all of these patients, but the diagnosis was not made.

The study concluded that two main factors caused the physicians to miss the diagnosis: The first, and most common, factor was that the patient's physical findings failed to impress the examiner. A self-discovered mass in younger patients who had a negative or equivocal mammogram report did not signal cancer to these physicians. The second, and less defensible, factor was the examiner's failure to follow up with the patient after the initial examination of the breast lump.

When an atypical patient presents with equivocal symptoms and findings, failure to diagnose breast cancer at the initial visit is usually defensible. Too often, however, the physician neglects to monitor the breast lump for changes, fails to order more definitive studies, or simply dismisses the patient's concerns as unwarranted. If a cancer is later diagnosed, these actions are nearly impossible to defend.

Establishing and following a breast lump protocol is key to early detection and diagnosis of breast cancer. To prevent missed diagnoses, MMIC strongly recommends physicians practice these risk management practices:

- Implement a policy to follow up with any patient who presents with a dominant, palpable breast lump.
- Carefully document family histories and all breast complaints.
- Compare any previous and current mammographies.
- Document recommendations for follow-up.
- Biopsy any palpable mass coupled with a negative mammogram.
- Educate physicians and clinical staff about the importance of patient follow-up in the early detection and diagnosis of breast cancer.
- Impress patients with the need for follow-up care, diagnostic tests, or monitoring.
- Notify at-risk patients who fail follow-up appointments that they are risking undiagnosed breast cancer if they do not return.

Follow-up systems, when properly implemented, can save time and lives. Contact your malpractice liability carrier's risk management department for assistance in evaluating and improving your facility's systems.

## *Conclusion*

The key to preventing errors in the patient care setting is education, for the medical staff and for the patients. Education can raise physician awareness of the tremendous potential for errors and improve patient understanding of treatment plans and follow-up needs.

By evaluating current practice patterns, potential gaps and risk exposures can be identified and minimized. The result is a safer style of practice that prevents and controls patient injuries, malpractice claims, and malpractice claim losses. MM

*Debra McBride is the vice president, risk management at Midwest Medical Insurance Company in Minneapolis. MMIC's seminar series this year focuses on preventing medication errors.*

NOTES

1. Study by the Bayer Institute of Healthcare Communication, New Haven, CT. For more information, call 800/800-5907.
2. Statistical data from the PIAA Cumulative Data Sharing Report, January 1, 1985–December 31, 1999. Copies of the entire report may be obtained by calling PIAA at 301/947-9000.
3. The PIAA Breast Cancer Study (1995) closely examined 487 closed, paid claims where a diagnosis of breast cancer had been missed.

**Blaine Medical Center**

is seeking BC/BE Family Practitioner to join four Family Practitioners in a growing practice located in northern tier suburb of the Twin Cities.

Excellent salary and benefit package. Shareholder potential after one year.

Blaine Medical Center is affiliated with Multicare Associates, an independent physician owned practice with locations in Blaine, Fridley, and Roseville.

CONTACT:
**Steve Bentz, M.D. at 612-785-8544 or Jeannine Schlottman at 612-785-3338.**

www.multicare-assoc.com

**CentraCare Clinic** *is a progressive and growing 108-physician multi-specialty clinic with 9 Central Minnesota sites. Our clinics offer a comprehensive income and benefits package and are conveniently located between the Twin Cities and prime Minnesota lakes area. Central Minnesota offers an outstanding lifestyle with quality schools and abundant recreational activities. CentraCare Clinic is currently recruiting for the following locations:*

**CENTRACARE Clinic**
River Campus

***Join** an exceptional 65-physician specialty clinic which currently has openings in the following specialties:*

- Allergy
- Internal Medicine *St. Cloud/Little Falls*
- Dermatology
- Neurology
- Neurosurgery
- Gastroenterology
- Pediatric Intensivist
- Infectious Disease
- Rheumatology
- Non-Interventional Cardiology

**CENTRACARE Clinic**
Heartland

***Join** an experienced 6-physician clinic with an opening in:*

- Family Practice Physician who practices Obstetrics

**CENTRACARE Clinic**
Women & Children's Center

***Join** an exceptional 21-physician clinic specializing in pediatrics and obstetrics/gynecology which currently has openings in the following specialties:*

- Allergy
- Pediatrics
- Obstetrics/Gynecology
- Obstetrics specializing in Endocrinology & Reproductive Health

*For further information, please call or write:*

***Karla Donlin***
***Kristine Cunningham***
*Physician Recruiters*

*1406 Sixth Avenue North*
*St. Cloud, MN 56303*
***1-800-835-6652***

*Not a health care profession shortage area.*

**CENTRACARE Clinic**

# NEWS VIEWS

## ANNOUNCEMENTS



### Christensen Retires from AMA House of Delegates

The most recent AMA House of Delegates meeting, held June 11 through 15 in Chicago, was the last for Robert D. Christensen, M.D., who has served on the MMA delegation for the maximum term of 12 years.

Christensen has also served as MMA president, Board of Trustees chair, West Metro trustee, and has served on several committees. He received the MMA Distinguished Service Award in 1994.

### McMahon Receives Goldberger Award

M. Molly McMahon, M.D., F.A.C.P., associate professor of medicine at Mayo Clinic, received the Joseph B. Goldberger Award in Clinical Nutrition at the June AMA House of Delegates meeting. McMahon is nationally recognized for her contributions to hospitalized patients requiring parenteral and enteral nutrition support.

# In Minnesota Clean Air Debates, Where There's Smoke, There's Ire

When the Moose Lake City Council began discussing a smoking ban proposal last winter, the politics of tobacco found a small, but often contentious, arena. In the community of about 1,200 residents, economic concerns collided with demand for clean air in debates that often pitted neighbors against each other.

A city council vote on April 5 made Moose Lake the first city in Minnesota to prohibit smoking in all restaurants. The decision marked a significant inroad for anti-smoking efforts in the state and inspired other communities and governing bodies to discuss similar measures. They, too, are finding that things heat up when a tobacco ban proposal comes to town.

> "There is no such thing as a right to pollute the air that children and nonsmokers breathe."
>
> *A. Stuart Hanson, M.D.*
> *MMA Past President*

The Duluth City Council heard months of debate before passing a ban limiting smoking in the city's restaurants on June 13, and the Hennepin County Board of Commissioners recently drew criticism from labor groups after announcing it is considering a resolution to strengthen its smoke-free policy.

"Moose Lake made an important statement when it took the lead on this issue," says A. Stuart Hanson, M.D., a Minnesota Medical Association past president. Hanson is a board member of the Minnesota Partnership for Action Against Tobacco, an organization funded by the state's tobacco settlement.

"These issues can become highly charged and personal," says Hanson. "People with related economic interests, such as tobacco retailers and those in the hospitality industry, often align against other stakeholders out of fear of losing business," he says.

Ray Christensen, M.D., who practices at Mercy Hospital in Moose Lake, says he felt the community needed to go through the process of debate, evaluation, and resolution of the issue. "Although the evidence regarding the harm of passive smoke is irrefutable, I thought there would be better acceptance of a smoking ban if both sides felt they were heard," he says.

Christensen says he received some criticism for not taking a tougher stand on the issue. "My experience has taught me to approach these issues gently, avoiding slam tactics. We can blame Big Tobacco for spreading misinformation, but these are people's real feelings," he says.

Hanson says fear that businesses will become less profitable if they ban smoking is understandable, but a misconception. "Restaurants that ban smoking reduce operating costs in a number of ways, such as not having to repaint or replace carpet as frequently," says Hanson. "Tobacco companies use scare tactics to steer business owners away from the logic of eliminating smoking in their establishments," he says.

*SMOKING BAN cont. on page 35*

# VIEWPOINT

***John M. Van Etta, M.D.***
*MMA President*



## Elks, Lions, Moose, and the MMA Are All in the Same Boat

What do the Minnesota Medical Association, the Elks, the Lions, and the Moose have in common? All these groups are active in community service and they're all working hard to maintain membership.

Service to our community is as much a part of our professional tradition as legislative advocacy.

At the AMA Meeting in Chicago in June, I was impressed by the idealism of the medical community. Hundreds of medical students went to Chicago's Lincoln Park Zoo to enroll uninsured children in Illinois' children's health insurance program, and to give free vaccinations and face painting. This event kicked off the AMA-Medical Student Section's national campaign to register uninsured children for health care coverage.

The AMA Foundation unveiled the new Health Literacy Kit to raise physician awareness of the approximately 90 million Americans who may have difficulty reading, understanding, and acting on health care information. This kit can help us improve our communication with patients with low literacy skills. (See facing page for more information.)

Organized medicine continued to call for an end to tobacco-related illness and death. The AMA House of Delegates adopted a resolution asking the AMA to urge Congress to pass legislation giving the Food and Drug Administration broad-based power to regulate tobacco products.

In Minnesota, the MMA has led the way in encouraging our state to improve access to health insurance, especially for children, and passing clean air legislation. Through the AMA, we are involved nationally in these and other public health initiatives.

Even as the AMA was demonstrating the civic mindedness of the physician community, E. Ratcliffe Anderson, the AMA's executive vice president, was warning the House of Delegates that "membership woes are the thousand-pound gorilla in the living room." He urged AMA members to help recruit and retain members.

At the state level, we—like the AMA, Elks, Lions, and Moose—face the challenge of maintaining our membership. People have many demands on their time and on their pocketbooks. How can we make sure that organized medicine will continue to be a force in the community? One powerful way is word of mouth. Nothing is more persuasive than having a trusted colleague encourage you to join or to remain a member.

Why be a member of organized medicine? We belong to the AMA and MMA not just because a strong lobbying voice helps maintain an environment where we can provide appropriate health care for our patients. Community service is another powerful reason to join. Even if commitments to your family and your medical practice do not allow you to be active in community service, your membership in the MMA and AMA ensures that you are truly involved in your community. Through the AMA and MMA, we work for access to health care, better communication with patients, clean air, efforts to prevent domestic violence and encourage parent education, and much more. There are many good reasons to help keep this boat afloat.

## AMA Foundation Initiative Seeks to Improve Health Literacy

Research suggests that low health literacy in the United States costs the health care system an estimated $73 billion annually.

The AMA and AMA Foundation introduced a health literacy kit in June that is the first step in raising physician awareness about low health literacy.

The AMA Foundation's program on health literacy is designed to educate physicians about the approximately 90 million Americans who may have difficulty reading, understanding, and acting on health care information.

The kit contains a videotape with vignettes of individuals affected by health illiteracy, a Council on Scientific Affairs report, fact sheets, a discussion guide with a physician survey, and a questionnaire for CME credit. Physicians who use the kit will better understand the scope of the health literacy problem and will recognize health system barriers faced by low literacy patients. They will learn to how to communicate more clearly while maintaining a shame-free environment.

AMA members may purchase the kits for $15 each. To order, contact georgianne_cooper @ama-assn.org or 312/464-5563.

## *SMOKING BAN from page 33*

Hanson says he is concerned that cigarette advertising and other messages put forth by tobacco companies encourage smokers to feel entitled to light up in public places. "There is no such thing as a right to pollute the air that children and nonsmokers breathe," says Hanson. "Communities decide whether this is an acceptable practice," he says.

The Duluth ordinance, which takes effect on January 1, 2001, prohibits smoking in restaurants unless the smoking area is separated from the rest of the building by a solid wall and closing door. It also mandates that smoking areas include no more than 30 percent of restaurant seating. The ordinance does give restaurant owners some breaks, however, including the opportunity to apply for an exemption if the establishment loses a specified amount of business as a result of complying with the ban.

Judy Knapp, executive director of the Minnesota Smoke-Free Coalition, says the ban is a good first step, but that it could be stronger and protect more citizens. Her biggest concern about the ban's limitations is its "red light, green light" loophole that allows restaurants that serve alcohol to permit smoking after 8 p.m.

John Van Etta, M.D., MMA president, who practices in Duluth, says he applauds the city councils of Moose Lake and Duluth for leading the way in improving public health in Minnesota.

"We anticipate that other Minnesota cities will join these communities in protecting children, employees, and nonsmoking adults from the hazards of secondhand smoke," he says.

Within days of the Duluth decision, Hennepin County Board Chairman Randy Johnson introduced a resolution that would extend the current smoking ban in county buildings to a 15-yard distance from every street-level entrance beginning September 15. Under the proposal, all grounds under the county's jurisdiction would become smoke-free on January 1, 2003.

The proposal in its current form would also prohibit county employees from smoking on the job, although the policy would not apply to employees working at home.

The MMA issued an alert to help dispel false information about the proposed policy. Some media reports incorrectly stated that the proposal would prohibit tobacco use in employees' private vehicles. Smoking in county-owned vehicles has been banned for many years; the proposal does not address smoking in private vehicles.

Employee union representatives initially said the Hennepin County proposal was both unnecessary and unworkable. A proposed compromise would allow smoking in designated areas that are not visible to the public. The fact that many county employees do not have health insurance coverage for smoking cessation treatment has been a concern on both sides.

Hanson expects smoking bans at the local level to have results similar to those from state and federal anti-smoking legislation, which has helped reduce the number of smokers nationwide, he says.

As a physician, Hanson supports and advocates such measures as part of his goal of improving people's health. "That includes doing what I can to reduce the number of people who smoke and helping to safeguard the health of those who don't," he says.

"No one—especially not children—should have to breathe air polluted by tobacco smoke."

# Tentative Schedule of Events

## MMA Annual Meeting
## September 13 to 15, 2000
## Duluth Entertainment and Convention Center

### Wednesday, September 13

9:30 a.m. to 6 p.m.
General Registration

10 a.m. to 2 p.m.
Executive Committee Speakers Training

2 p.m. to 4:30 p.m.
Board of Trustees Meeting

4:30 p.m. to 6 p.m.
MEDPAC Annual Meeting

6 p.m. to 8 p.m.
Welcome Reception
Great Lakes Aquarium

8:30 p.m. to 10 p.m.
Young Physician Section Reception

### Thursday, September 14

6:30 a.m. to 5 p.m.
General Registration

6:30 a.m. to 8 a.m.
Continental Breakfast

7 a.m. to 8:45 a.m.
Component Society Caucuses:
Ramsey
Hennepin
Greater Minnesota

9 a.m. to 10:30 a.m.
House of Delegates (Session I)

10:30 a.m. to 11:15 a.m.
AMA Open Forum

11:15 a.m. to 12:45 p.m.
Awards Lunch

1 p.m. to 3:30 p.m.
Reference Committee Open Hearings

3:30 p.m. until Completion
Reference Committee Executive Session

4 p.m. to 5 p.m.
Organized Medical Staff Section

4 p.m. to 5 p.m.
Medical Student Section

4 p.m. to 5 p.m.
AMA Delegation Meeting

6 p.m. to 6:30 p.m.
Pre-Inaugural Reception

6:30 p.m. to 9 p.m.
President's Inaugural Dinner and Festivities

9 p.m.
Afterglow Reception and Entertainment

### Friday, September 15

6:30 a.m. to 8 a.m.
Continental Breakfast

7 a.m. to 8 a.m.
Resident Physician Section

7 a.m. to 8:30 a.m.
Board of Trustees Breakfast Meeting

8:30 a.m. to 12 Noon
General Registration

8:30 a.m. to 10:15 a.m.
Component Society Caucuses:
Ramsey and Hennepin
Greater Minnesota

10:30 a.m. to 3 p.m. (Includes lunch)
House of Delegates (Session II)

12 Noon
Spouse Lunch

3 p.m. to 3:30 p.m.
Board of Trustees Organizational Meeting

# NEWS DIGEST

*People and places making medical news*



## People & Places

**Alfred Michael, M.D.**, dean of the **University of Minnesota Medical School**, received the **Charles Bolles Bolles-Rogers Award**, an honor given annually by the chiefs of staff of hospitals in Hennepin, Anoka, Scott, Carver, and western Dakota counties. The award recognizes a physician for outstanding research, achievement, or leadership. Michael is the first dean of the medical school to receive this honor.

The **University of Minnesota Medical Alumni Society** has named **H. Mead Cavert, M.D., Ph.D.**, and **Richard M. Magraw, M.D.**, recipients of the **2000 Harold S. Diehl Award**, given in honor of the medical school's fifth dean, **Harold Sheely Diehl, M.D.** A 1950 graduate of the medical school, Cavert was honored for his extraordinary service as a teacher, administrator, and alumni volunteer at the school. As assistant dean, Magraw, a 1943 graduate of the medical school, led the fight for medical students to see patients and be involved in the teaching process.

The **Minnesota Academy of Family Physicians** (MAFP) gave **LeRoy Mueller, M.D.**, the **MAFP Physician of the Year Award** for representing the highest ideals of the specialty of family medicine. Mueller has practiced for more than 35 years in Hendricks. Other recipients of MAFP awards are **Keith Stelter, M.D.**, Merit Award for furthering the ideals of family practice; **Laura Olson, M.D.**, Resident of the Year Award; **Christopher Reif, M.D.**, Teacher of the Year Award; **Dwenda Gjerdingen, M.D.**, Researcher of the Year Award; and **Lori Bethke**, Student of the Year Award.

The **Northern Lakes Health Consortium** elected the following officers at its annual meeting in May: **Raymond Christensen, M.D.**, Gateway Clinic, president; **Jack Greene, M.D.**, Hibbing Family Medical Center, vice president; and **JoAnn Hoag**, St. Luke's Hospital, secretary/treasurer. Newly elected board members include **Richard Dinter, M.D.**, University Medical Center-Mesabi; **George Knabe, M.D.**, G.W. Knabe & Associates; and **Jeff Scrivner, M.D.**, Northland Medical Clinic.

**K. James Ehlen, M.D.**, former president of **Allina Health Systems**, joined the health care practice of law firm **Halleland Lewis Nilan Sipkins & Johnson**, where he will be lead executive in the firm's health consulting group. The Minneapolis firm practices in the areas of health law, labor and employment, financial services, products liability, and commercial litigation.

**Martha A. Nance, M.D.**, has become the new medical director for **Struthers Parkinson's Center**, a part of **HealthSystem Minnesota** that offers an integrated approach to Parkinson's disease diagnosis, treatment, and management. Nance replaces **Paul Silverstein, M.D.**, a founder of the center who retired in April. Nance is also director of the **Huntington's Disease Clinic** at **Hennepin County Medical Center** and a clinical assistant professor in the **Department of Neurology** at the **University of Minnesota.**

In the first phase of a three-part project, **Struthers Parkinson's Center** is adding more exam rooms and office space and renovating conference rooms. The Struthers Parkinson's Center opened in 1995 to offer an integrated approach to diagnosing, treating, and managing the disease, which afflicted a member of the Struthers family in 1991. Since then the family has helped fund support for Parkinson's patients and their families.

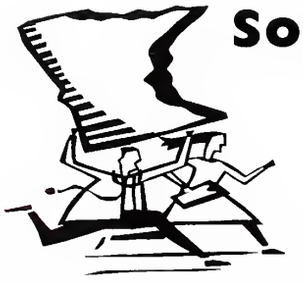
**Karl Self, D.D.S., M.B.A.**, a community dentist and health care administrator, was named director of the **University of Minnesota Community-University Health Care Center and Variety Children's Clinic**. The clinic, which has 150 staff physicians, was founded in 1966 to serve disadvantaged people in the Phillips neighborhood, one of Minneapolis's poorest and most ethni-

⇨

cally diverse communities.

**HealthPartners Medical Group** named **John Wheeler, M.D.,** associate medical director, primary care. Wheeler, who also serves as chief of professional services at the HealthPartners **Woodbury Clinic,** has been acting interim director since May 1999.

**HealthPartners Medical Group** was honored at the **American Diabetes Association**'s 60th Annual Scientific Sessions for its work in achieving ADA Provider Recognition. HealthPartners is one of only two major medical groups in the country with that distinction. The Provider Recognition Program is intended to improve diabetes care within medical groups by setting high performance levels and recognizing physicians who attain high scores on key process and outcome measures.



# Socioeconomics

### Medica to Withdraw from Medicare+Choice

Citing low payments from the federal government, **Medica,** the largest HMO in Minnesota, announced that it will drop its Medicare HMO plans as of January 1, 2001. The decision to withdraw from the **Medicare+ Choice** program affects about 15,000 seniors in the Twin Cities metro area, who will still have the option of selecting from two similar Medicare HMO plans, sponsored by **HealthPartners** and **UCare Minnesota** in metro-area counties.

Medica had been losing money on Medicare+Choice: $7 million in 1999, and $9.1 million between 1995 and 1998. "We would be willing to get back in Medicare+Choice if they fix the payment formula," Mark Owen, vice president of Medica's Center for Healthy Aging, told the *Star Tribune*. Federal reimbursements to Minnesota Medicare HMOs are lower than the national average.

### HealthPartners Loosens Reins over Health Care Decisions

**HealthPartners** has posted its medical policies and procedures on its Web site, promising to give physicians and patients alike more say in health care decisions. The move is intended to help HealthPartners draw new members and decrease public mistrust. Among the 10 commitments are the following: (1) No secrets, no surprises: The exact medical criteria for prescreening will be available on the Internet to all members, for example; (2) No interference with doctors: More than 9,500 medical procedures will require no approval from the plan; and (3) Wider range of choices: Individuals can make choices about their level of health benefits and their clinics and physicians. HealthPartners has also posted its drug formulary on the Web. However, as Steve Wetzell, executive director of the **Buyers Health Care Action Group,** pointed out to the *St. Paul Pioneer Press*, those formularies are put together by company officials.

Still, Wetzell praised the health plan for its openness in making public how it makes decisions. Further information about HealthPartners' new policies can be found at www.healthpartners.com.

### Health Coverage for State Employees to Rise 19 Percent

For the fifth year in a row, the cost of health care coverage for **Minnesota** state employees is set to increase. The 19 percent increase affects the 156,000 employees, dependents, and early retirees who are members of the plan, which has more than 60,000 state workers enrolled. Those who stay with the plan will pay $20 to $25 more in monthly health care premiums, on average, with some perhaps paying as much as $100 more per month.

The state expects to pay an additional $45 million, bringing the total bill to about $307 million for health care costs next year for state workers in the plan. Experts blame the usual suspects for rising health care costs—higher prices for prescription drugs, a growing number of those drugs, an aging population, greater numbers of people seeking health care, and new technology. The new rates go into effect in January.

### Minnesota HMOs Regained Profitability in 1999

According to health care analyst **Allan Baumgarten**'s *Minnesota Managed Care Review 2000, Part One*, in 1999 premium revenues rose

sharply and HMOs once again became profitable, even as enrollment in Minnesota's HMOs declined by 52,000 members. However, the gains were largely due to investments. Medica had a revenue increase of 13.7 percent, the largest for commercial plans.

Baumgarten also found that the trend of employers moving from insured plans to self-funding has continued. Enrollment in HMO public assistance programs has grown, with the number of enrollees now exceeding 300,000. For excerpts from the report, visit www.AllanBaumgarten.com.

### Fairview and Medica Sign Two-Year Contract

Fairview Health Services and Medica have agreed on a two-year contract, ending recent worry that Medica members might no longer have access to care from Fairview clinics and hospitals. The new contract, which went into effect on July 1, dictates how much Medica will reimburse Fairview for medical care given to Medica members. Details of the contract were not released.

### High-Risk Pool to Pay More for Health Insurance

Minnesotans whose health insurance comes from the state's high-risk pool will be hit with rate increases of up to 20 percent. That increase affects about 25,000 people, whose health problems prevent them from obtaining private insurance. The insurance program, called the Minnesota Comprehensive Health Association (MCHA), is required by law to charge rates that are between 1 percent and 25 percent higher than average market rates. Despite the rate increase, which went into effect July 1, MCHA will lose money, because premiums are its sole revenue source.

### Electronic Medical Network Expands to Northeast Minnesota

The Minnesota Health Data Institute (MHDI) and the Community Health Information Collaborative (CHIC) have linked the CHIC medical network in the Duluth area with MEDNET, Minnesota's largest private medical network. The new service, which began this month, expands the secure communication capabilities between health care providers and plans in northeastern Minnesota. MEDNET links more than 100 hospitals, 500 medical clinics, all major commercial health plans, and Medicaid and Medicare.

### UM Cancer Center Gets $10,000 Donation

The Meredith Baxter Foundation donated $10,000 to the University of Minnesota Cancer Center to establish the Meredith Baxter Foundation Endowed Fund for Breast Cancer Research. The goal of the research program is to translate laboratory findings into clinical practice to improve breast cancer outcomes. The foundation has requested that the funding be used for prevention and research, including free mammograms for low-income women.

## Research & Innovations



### 'U' Researchers Shed Light on Tickborne HGE

University of Minnesota researchers have identified the molecule on human cells that binds to the bacterium responsible for human granulocytic ehrlichiosis (HGE), a tickborne illness discovered in Minnesota in the mid-1990s. Like the bacterium responsible for Lyme disease, the ehrlichiosis bacterium is transmitted to humans through deer ticks. The discovery of the target molecule opens the way for a potential vaccine against the disease.

University of Minnesota authors of the study, which appeared in the June 1 issue of *Science,* included Jesse Goodman, M.D., professor of medicine, and Michael Herron, assistant scientist in the Department of Medicine, as well as Janet Larson and Karen Snapp.

### Lyme Disease Vaccine Not Enough to Prevent Tickborne Illnesses

Alan Lifson, M.D., M.P.H., head of the Acute Disease Prevention Services Section at the Minnesota Department of Health (MDH), cautions that the vaccine against Lyme disease is only one part of a broader strategy for preventing tick-related illnesses. Health officials recommend these additional measures to help prevent tick exposure:

- Avoid tick habitats and use a good tick repellent.
- Wear clothes that help shield you from ticks, such as long-sleeved shirts and long pants. To create a "tick barrier," tuck your pants into

the top of your socks or boots.

• Check frequently for ticks and promptly remove any that you find, using a pair of tweezers or tick forceps. Do not remove ticks with Vaseline, nail polish remover, or burning matches.

Besides Lyme disease, ticks can transmit human granulocytic ehrlichiosis (HGE) and babesiosis. All three illnesses are carried by the "deer tick," which is found primarily in wooded, brushy areas, in east-central Minnesota and parts of southeastern Minnesota.

### Islet Cell Transplants Give Diabetes Patients Freedom from Insulin

University of Minnesota physicians have begun transplanting islet cells in patients with Type I diabetes, under the direction of **Bernhard Hering, M.D.**, head of the university's islet cell transplant program. Islet cells, which produce the insulin that the body needs to process sugar, are harvested from cadaver pancreases for the procedure. Recent success with the procedure at the **University of Alberta** in **Edmonton** sparked renewed interest in islet cell transplantation, which had fallen by the wayside because of poor outcomes in the past.

The success of the Canadian researchers was attributed to using more islet cells, using only freshly harvested cells, and modifications to the anti-rejection drug regimen. The first series of clinical transplant trials at the university will involve 52 patients.

### New Treatment May Repair MS Damage

**Mayo Clinic** scientists have found a way to repair or regrow the myelin sheath in lab mice, raising hope for doing the same for patients with multiple sclerosis. The technique involves beefing up the immune systems of the mice with two human antibodies. **Moses Rodriguez, M.D.**, a Mayo Clinic neurologist and chief author of the study, which was published in the June 6 *Proceedings of the National Academy of Sciences*, said it was previously believed that damage to the protective covering could not be undone. The research did not show whether the procedure restores nerve function.

## Rates, Trends & Data



### Report Shows Mixed Improvement in Teens' Risky Behaviors

A report issued by the **Centers for Disease Control and Prevention** showed an increase in the use of cocaine, marijuana, and cigarettes by high school students during the 1990s. The survey, which involved 15,349 students in grades nine through 12, also indicated that fewer teens engage in sex and when they do, they tend to use condoms, a practice urged by health officials during the time of the survey.

Teen alcohol use was unchanged since 1991, but cigarette smoking as measured by smoking at least once in the previous month peaked at 36.4 percent in 1997, before falling to 34.8 percent in 1999. Frequent cigarette use rose to 16.8 percent in 1999 from 12.7 percent in 1991, despite government-sponsored anti-smoking campaigns during the decade.

### WHO Puts U.S. at No. 24 for Healthy Life Expectancy

The **World Health Organization** reported that Japanese have the longest expectancy for healthy life—74.5 years. The United States—with a healthy life expectancy of 70 years—was rated 24th, trailing France, Sweden, Spain, and Italy, among others. The U.S. ranking was attributed to low health standards among the poor, lower than that of many Africans, according to WHO. Tobacco-related disease and homicide and injury rates also hurt the ranking of the United States, which spends more than any other country on health care.

In another WHO survey, the United States ranked only 37th worldwide in satisfactory health care. Even small countries such as Malta and Singapore ranked better, and England, at No. 18, was far ahead. The people of top-ranked France live longer on average than most other people and are protected by widespread safety regulations to ensure health.

As in the previous survey, the United States' low rank was attributed to its failure to provide adequate care to poor people. The World Health Report 2000 examines and compares the health care delivery systems in 191 nations.

*Minnesota Medicine* is the official journal of the Minnesota Medical Association, and its purpose is to provide Minnesota physicians with timely information regarding all aspects of medicine so they can more capably serve their patients and more readily achieve their professional goals. Therefore, the editors are pleased to consider for publication clinical and health papers (clinical studies, reviews, case reports) and essays, letters, and opinion pieces related to medical practice in Minnesota.

## Manuscripts

Submit clinical articles, essays, letters, book reviews, and other manuscripts at any time to: Meredith McNab, Managing Editor, *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761. Manuscripts are reviewed by the editors and peer reviewed by the Advisory Committee, the Review Board, and other experts in particular specialties.

Please submit two copies and keep one for your files. You may submit a Macintosh or IBM-compatible ASCII (text) floppy disk with your manuscript. Disks and copies of unpublished manuscripts will be returned to the authors. Only submit unpublished articles that have not been submitted elsewhere.

A cover letter should identify the author with whom we should correspond (include address and phone number). Double-space all text on one side of paper only, including references, legends, etc., and number pages consecutively.

Receipt of manuscripts is acknowledged within 10 days, and authors are usually notified whether their manuscript is accepted within one to three months, but longer delays are sometimes unavoidable.

## Title and Authors' Names

The first page of the manuscript should include: 1) a title—make it short, specific, and direct, 2) the full names of all authors, with their academic degrees, 3) authors' positions in hospitals or other institutions—include current position and the position held when the work reported in your manuscript was done, as well as academic appointments and other information pertinent to the paper's topic.

## Abstract

The second page of the manuscript should include an abstract no longer than 150 words that highlights for the reader the essence of the authors' work. It should focus on facts rather than descriptions and should emphasize the importance and uniqueness of the findings and briefly list the approach used for gathering data and the conclusions drawn.

## Author Responsibility

All authors should be involved in the drafting, revision, and intellectual content of the manuscript and be sufficiently familiar with the paper to defend its findings. Authors are responsible for all statements made in their work, *including changes made by copy editors*. Manuscripts are edited for clarity and grammar and to conform to *Minnesota Medicine* style, and authors receive an edited, word-processed copy of their paper for their review before it is sent to the printer. Once it is set in galleys, only *minor* changes can be made.

All authors sign a copyright form that conveys all copyright ownership to the Minnesota Medical Association. This form is mailed to the authors after a manuscript is submitted to *Minnesota Medicine*, and must be completed and returned before the article is published. If the manuscript is not accepted for publication, the form is returned to the authors.

## Style

Use *JAMA* style or consult the AMA's *Manual for Authors & Editors*. Use generic drug names, unless citing a brand name relevant to your findings; brand names in parentheses may follow generic names if desired. Do not use abbreviations in the title, and limit their use in the text. Avoid medical jargon.

## Tables

Tables must have a title and be on separate pages. If they occupy more than one page, type "*title* (cont.)." If the data in the tables have been previously published, appropriate reference should be given in the text, and permission should be obtained from the original publisher before submission to *Minnesota Medicine*.

## Illustrations

Submit two copies of illustrations, keeping one for your files. Figures should be professionally drawn or photographed, if possible. We prefer glossy, clear black-and-white photographs, but color is acceptable if the contrast is good. Do not send original artwork.

Each figure should have a label pasted on the back indicating the figure number, author names, and the top of the figure. Legends should be included in the text of the manuscript with numbers corresponding to the figures. Do not mount figures on cardboard, write on the back of the figures, or attach paper clips to them. If a patient in a photo is identifiable, a written release form from the subject must accompany the photo.

## References

All references must be cited in the text and should be arranged in the order in which they are cited in the text—*not* alphabetically. Journals should be abbreviated as in *Index Medicus*.

Examples:

1. Benson RC Jr. Laser photodynamic therapy for bladder cancer. Mayo Clinic Proc 1986;61:859-64.

2. Guttormson NL, Bubrick MP. Mortality from ischemic colitis. Dis Colon & Rectum, to be published.

3. Chaterjee SN. Use of GOR-TEX grafts as vascular access procedure for chronic hemodialysis. Abstract of a paper submitted to the European Society for Artificial Organs Eighth Annual Meeting, Copenhagen, August, 1981.

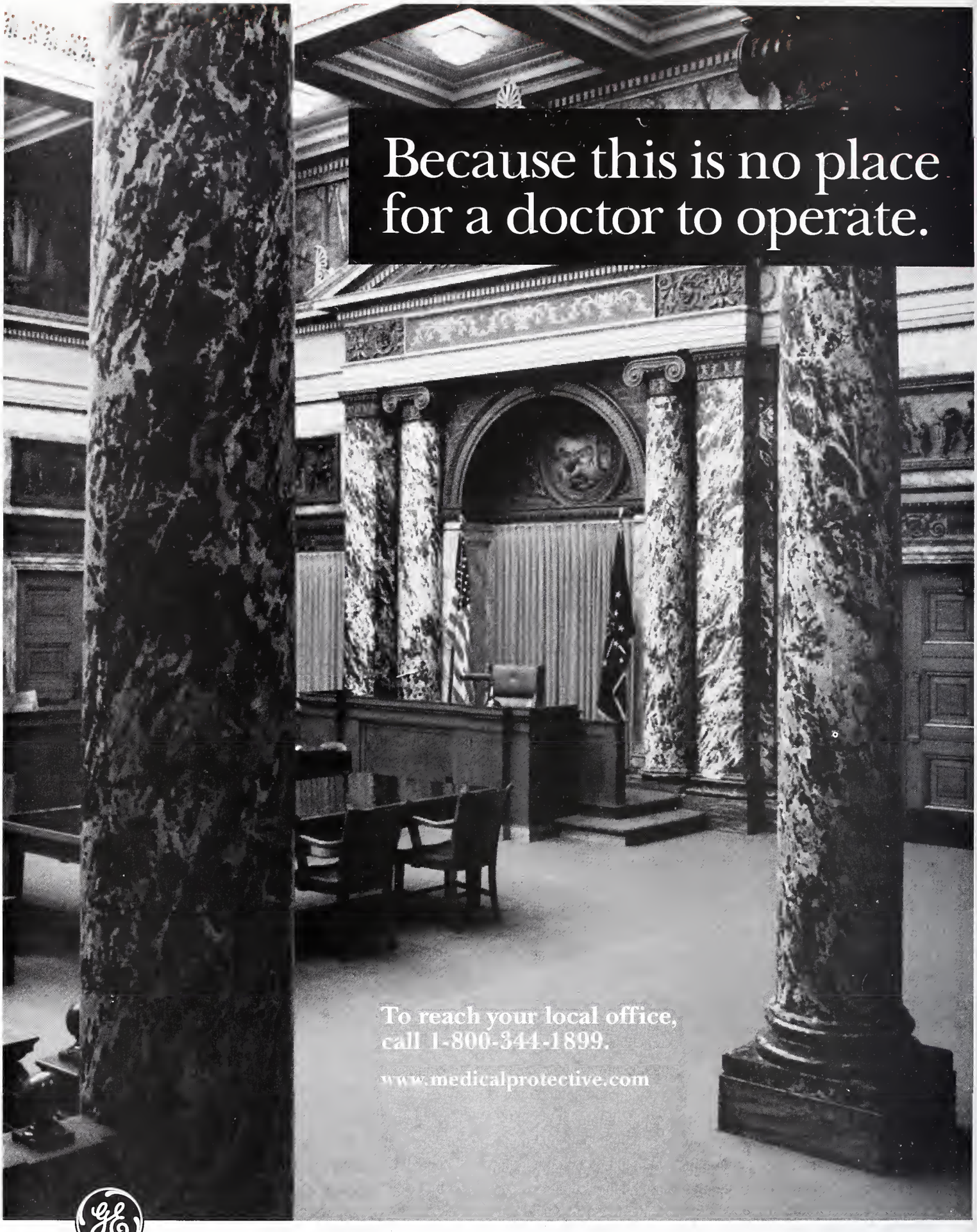
4. Thompson NW. Thyroid and parathyroid. In: Welch KJ, Randolph JG, Ravitch MM, et al., eds. Pediatric Surgery, 4th ed. Chicago: Year Book Medical, 1986:522-33.

## Financial Interest

List all affiliations with or financial interest in organizations that may have a direct interest in the subject matter of your manuscript. This information will be held in strict confidence until publication, and then will be printed with the article as is deemed appropriate in judging the validity of the article.

## Reprints

Authors may order article reprints for a fee. Reprint request forms are sent to authors at the time of publication.




***The Medical Protective Company®***

# The Cochrane Library: A Resource for Current Reviews of Clinical Evidence

*The Cochrane Collaboration gives physicians easier access to clinical evidence to help them make everyday decisions about patient care.*

Amit Ghosh, M.D., Kathryn Robbins, Ph.D., and Julia Kelly, M.S.

A 32-year-old primi-gravida at 38 weeks gestation with a central placenta previa is admitted to the hospital for an elective cesarean section. You are the medical student on the team and have recently heard a consultant mention the use of prophylactic antibiotics to decrease postoperative infectious complications. You wonder about the scientific rationale for prophylactic antibiotic use for cesareans and decide to do some research. But where do you turn for information?

The Cochrane Library. Today, the quest for clinically relevant evidence is much easier, now that physicians can tap in to the many resources of the Cochrane Collaboration, an international organization based in Oxford, England, that combs the vast amount of available medical data for clinically important evidence. It then makes that evidence available to medical practitioners in the form of systematic reviews.

The collaboration, which consists of more than 50 review groups worldwide, including one in Minnesota, is named for British obstetrician and epidemiologist Archie Cochrane, M.D. In 1972 Cochrane observed that people who want to make informed decisions about health care do not have access to reliable reviews of the best evidence.[1] The collaboration is addressing that problem by helping to prepare, maintain, and disseminate systematic reviews of the effects of health care interventions. Participants in the collaboration begin with a clinically important question—such as the one above about prophylactic antibiotics and cesarean section—search for relevant randomized controlled trials, evaluate the methods and results of those trials, and write a structured review that gives a state-of-the-art answer. The reviews are published as part of the Cochrane Library, a valuable resource for evidence-based medicine.[2]

The Cochrane Library contains four databases (see the table, page 45). The Database of Systematic Reviews includes the full text of topic reviews produced by the Cochrane Collaboration. Each review covers randomized controlled trials or the best available evidence that meets the group's criteria.

## *Using the Database of Systematic Reviews*

Now that you know about the database, you can begin your formal search for information about prophylactic antibiotics for your 32-year-old patient who is facing a cesarean section. In the Cochrane Database of Systematic Reviews, you type in the words "cesarean section and prophylactic antibiotics" and obtain two systematic reviews. One of the articles is right on target: Smaill F, Hofmeyr GJ. Antibiotic prophylaxis for cesarean section (Cochrane Review). In: Cochrane Library, Issue 1, 2000. Oxford: Update Software.

This review included 66 trials with 9,365 patients undergoing cesarean, elective or nonelective. Patients were enrolled in randomized controlled trials in groups receiving prophylactic antibiotics, placebo, or no treatment. Outcomes studied were incidence of postoperative endometritis, wound infection, urinary tract infection (UTI), and other serious infection. When all trials of cesarean were combined, antibiotic prophylaxis reduced the rate of endometritis (RRR 63%, ARR 13%, NNT 8), postoperative fever (RRR 54%, ARR 18%, NNT 6), wound infection (RRR 60%, ARR 5.4%, NNT 18), and urinary tract infection (RRR 45%, ARR 4.2%, NNT 24).* In elective cesarean, only the incidence of endometritis and fever was less frequent than with the placebo.

You conclude that in women undergoing a cesarean section, antibiotic prophylaxis significantly reduces the incidence of endometritis, fever, wound infection, and UTI, and that it would therefore be hard to justify not using antibiotics for all women undergoing this procedure.

---

*Terms used:

RRR—the proportional reduction in the differences between the rates of adverse events in experimental and control groups in the trial.

ARR—absolute difference between the event rates in the experimental group and the control group.

NNT—number of patients who need to be treated to have one favorable outcome (calculated as 1/ARR).

### *What the Database Covers*

The Cochrane Database of Systematic Reviews is growing—it contains 795 reviews so far, covering a wide variety of specialties and including topics such as:

- Injection therapy for subacute and chronic benign low back pain;
- Pharmacotherapy for hypertension in the elderly;
- Neuraminidase inhibitors for preventing and treating influenza in healthy adults;
- Ultrasound for fetal assessment in early pregnancy.

All reviews are written for the practicing clinician and address a narrow, patient-focused topic. Abstracts include a concise report of the results and the reviewers' conclusions, while full topic reviews cover methodology and findings in user-friendly detail.

Another segment of the Cochrane Library, the Database of Abstracts of Reviews of Effectiveness, contains structured synopses of high-quality systematic research reviews on the effectiveness of health care interventions published in health sciences journals. The Cochrane Controlled Trials Registry is a bibliography of controlled trials listing more than 260,000 trials located by Cochrane participants. The Cochrane Review of Methodology Database is a bibliography of articles and books on the science of research analysis and synthesis.

### *Minnesota's Cochrane Review Group*

Only four of the collaboration's review groups are in the United States. One of them, the Prostatic Diseases and Urologic Cancers Review Group, is based at the Minneapolis VA Medical Center, where it is part of the Center for Chronic Disease Outcomes Research. Like Archie Cochrane, Timothy Wilt, M.D., who heads the Minneapolis review group, is a physician, epidemiologist, and health services researcher. Other key members of the team include review group coordinator Roderick MacDonald, trials search coordinator Indy Rutks, and statistician Dave Nelson. The other three U.S. groups are in San Francisco, Atlanta, and Syracuse, New York.

Members of a review group work on individual systematic reviews or coordinate the production of reviews by others. The process begins when a potential title is submitted to the review group's editor. One need not be a physician to submit a title; any interested, knowledgeable person can suggest one. After the protocol for the review is accepted, the research for the review begins. All reviews are also submitted to outside referees.

A systematic review may be published as a journal article before being released as a more detailed review in the Cochrane Database of Systematic Reviews. For example, the Prostatic Diseases and Urologic Cancers

## Access to the Cochrane Library

### Fees for Full Text

The Cochrane Library is an electronic resource available on the Internet or on a CD-ROM that can be used with a stand-alone computer or a small (up to 10 computers) local area network.

All four parts of the library (see table, page 45) can be obtained from Update Software (760/727-6792, info@updateusa.com, or http: www.updateusa.com). A yearly subscription to the quarterly CD-ROMs or an individual subscription to the Internet version costs $225. An institutional subscription to the Internet version costs $400 per year, plus $80 for each additional concurrent user.

The Cochrane Database of Systematic Reviews, which contains both the full text of completed reviews and protocols that are in progress, can also be obtained from Ovid Technologies as part of their EBM Reviews database. Ovid offers a variety of pricing and software options (212/563-3006, sales@ovid.com or http://www.ovid.com).

Printed copies of the full text of individual Cochrane reviews can be purchased for $12 each from CINAHL Express, with delivery either by U.S. mail or fax 800/959-7167, docorder@cinahl. com or http://www.cinahl.com/cexpress/cexpress.htm.

### Abstracts for Free

The abstracts of two parts of the Cochrane Library are available free on the Internet.

Abstracts of the Cochrane Database of Systematic Reviews (CDSR) are available on the Cochrane Collaboration's Web site (http://www.cochrane.org/cochrane/revabstr/mainindex.htm) and at other related sites (e.g., McMaster University's Cochrane webpages: http://hiru.mcmaster.ca/cochrane/cochrane/cdsr.htm). These are structured abstracts that include both the results and conclusions of the full reviews and are kept up to date through periodic revisions.

The Cumulative Index to Nursing and Allied Health Literature (CINAHL) includes references to the Cochrane reviews, and Medline[1] also plans to include these references. CINAHL is available by subscription from a variety of vendors, and Medline is available at no charge (e.g., PubMed: http://www.ncbi.nlm.nih.gov/PubMed).

The Database of Abstracts of Reviews of Effectiveness (DARE) is also available without charge on the Internet from the University of York in the United Kingdom: http://nhscrd.york.ac.uk/darehp.htm.

Table

*Databases of the Cochrane Library*

| |
|---|
| Cochrane Database of Systematic Reviews, CDSR |
| Cochrane Controlled Trials Registry, CCTR |
| Database of Abstracts of Reviews of Effectiveness, DARE |
| Cochrane Review of Methodology Database, CRMD |

Review Group published an article on the therapeutic use of saw palmetto extracts in *JAMA* as well as a corresponding Cochrane review.[3,4] The collaboration has formal publication agreements with various journals, including *JAMA, Annals of Internal Medicine, British Medical Journal,* and *Lancet.*

The review groups also work on non-Cochrane reviews. The Minnesota group, for instance, has recently participated in the production of reviews sponsored by the Agency for Healthcare Research and Quality (formerly the Agency for Health Care Policy and Research), the National Institute of Diabetes and Digestive and Kidney Diseases, and the Department of Veterans Affairs Office of Health Services Research and Development.

Participants in the Cochrane Collaboration have included physicians as well as other health care providers, researchers, administrators, and the general public. Activities range from proposing topics for reviews to hand-searching journals or conference proceedings, producing reviews, providing peer feedback, and disseminating information about the collaboration. Funding for the reviews generally comes from grants.

## *Summary*

The Cochrane Library is a tool for physicians and other health care practitioners seeking evidence to inform their decisions.[5] The systematic reviews provide a high-quality synthesis of the current literature, saving time for busy people. To make the library more user-friendly, the collaboration plans to produce a consumer summary for each topic in the Database of Systematic Reviews and a cancer library aimed at the general public.

In contrast to some of the questionable health-related resources on the Web, the Cochrane Library is an authoritative reference that can help physicians with everyday treatment decisions. The collaboration's commitment to keeping its resources up to date through vigorous support of reviewers should ensure that it remains a valuable Internet tool for physicians. MM

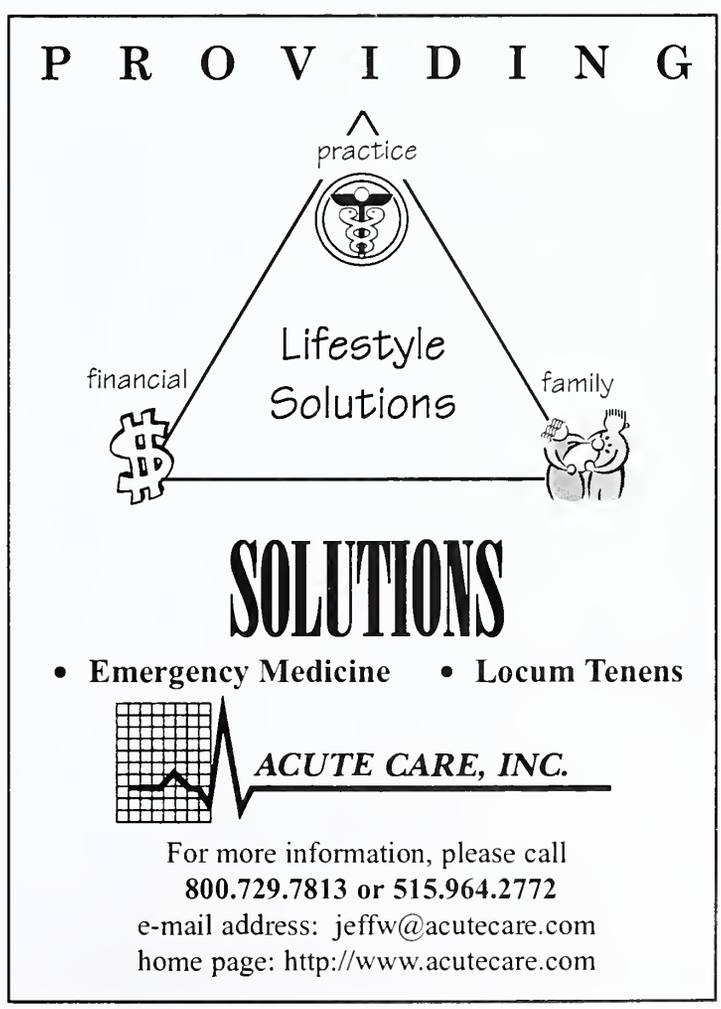
*Amit Ghosh is a physician at the Mayo Clinic in Rochester. Kathryn Robbins is head of reference and Julia Kelly is a reference librarian at the Bio-Medical Library at the University of Minnesota.*

*A University of Minnesota Academic Health Center (AHC) Educational Grant on Integrating Evidence-Based Health Care Skills into the AHC Curriculum, derived from a state of Minnesota appropriation, provides support to the authors to raise awareness about evidence-based health care practices.*

*For more information about the Cochrane Collaboration, contact Roderick MacDonald at the Prostatic Diseases and Urologic Cancers Review Group, Minneapolis VA Medical Center, Center for Chronic Disease Outcomes Research; phone 612/725-2000, ext. 1666, and e-mail: Roderick.MacDonald@med.va.gov.*

REFERENCES

1. Cochrane AL. Effectiveness and efficiency. Random reflections on health services. London: Nuffield Provincial Hospitals Trust, 1972.
2. Bero L, Rennie D. The Cochrane Collaboration. Preparing, maintaining, and disseminating systematic reviews of the effects of health care. JAMA 1995;274(24):1935-8.
3. Wilt T, Ishani A, Stark G, MacDonald R, Lau J, Mulrow C. Saw palmetto extracts for treatment of benign prostatic hyperplasia: a systematic review. JAMA 1998;280(18):1604-9.
4. Wilt T, Ishani A, Stark G, MacDonald R, Mulrow C, Lau, J. Serenoa repens for benign prostatic hyperplasia (Cochrane Review). In: Cochrane Library, Issue 2, 2000. Oxford: Update Software.
5. Jadad AR, Moher M, Browman GP, et al. Systematic reviews and meta-analyses on treatment of asthma: critical evaluation. Br Med J 2000;320(7234):537-40.




Why would you play 18 holes with just a putter?
A company that only offers you insurance is like playing 18 holes with just a putter. Midwest Medical Insurance Company gives you a full complement of "clubs"... services from expert malpractice insurance to complete employee benefits planning, strategic consulting, healthcare information systems consulting, even Internet services designed specifically for you! Master your game with MMIC as your most trusted business partner.
Call 1-800-328-5532 or visit us at www.midmedical.com
20 Years
MMIC
of Excellence
INSURANCE
EMPLOYEE BENEFITS
CONSULTING
Technology & Strategic
INTERNET SERVICES

# Celebrating 40 Years of Service

*For Karen Tourdot, executive director of the MMA Alliance, the tributes began the day she was hired to staff the MMA's mailroom—in 1960.*

By Cynthia Lehman

When Karen Tourdot received the Minnesota Medical Association Alliance (MMAA) Distinguished Service Award in 1991, she naturally was pleased to have her work recognized. After all, as MMAA executive director since 1964, Tourdot had built her career at the Minnesota Medical Association on her commitment to helping the alliance become an effective, well-run organization. But she was especially moved by the personal nature of the honor.



Tourdot knew the discretionary award, presented by the alliance president and five most recent past presidents, had been bestowed previously on only one other individual.

"To be recognized among so many dedicated and talented people was a singular experience," says Tourdot. "These people are my mentors, my sisters, and my friends."

This year, MMAA members decided to commemorate Tourdot's contributions to the alliance in a manner befitting her 40-year employment anniversary with the MMA on June 13: They renamed their Distinguished Service Award the Karen A. Tourdot Distinguished Service Award.

As much as the award's new name characterizes her devotion to the MMAA, it also reflects Tourdot's role in the history of the alliance as its executive director. Tourdot knows the MMAA so well that its officers frequently turn to her for guidance on procedures for many of its operations. "Most of us would not have survived our presidencies without Karen," says Dianne Fenyk, MMAA immediate past president. "As an organization, I doubt we would have survived the last 40 years without her."

"Karen really keeps us on course," says Kay Gower, MMAA president from 1992 to 1993. "Every state president greatly values her sense of humor and wisdom. Each president brings her own experience and style to the position. Karen works with us—bringing out our strengths and helping us in our areas of weakness."

When she began her career at the MMA at age 17—five days after graduating from high school—it would have been difficult to predict just how much alliance members, as well as MMA members and staff, would come to rely on Tourdot.

Harold Brunn, MMA executive secretary from 1956 to 1982, remembers interviewing her for the job. When he met Tourdot, then Karen Steele, she was in some ways a typical teenager—breezy and energetic, according to Brunn. "I guess, at that time, you'd have said she was 'hip,' " he says. He also sensed she was exceptional.

"She was young and inexperienced but demonstrated a lot of qualities that warranted taking a chance," says Brunn. Tourdot quickly proved his instincts correct. "Her drive, enthusiasm, and intelligence made her an increasingly valuable employee. Hiring Karen turned out to be one of my greatest contributions to the MMA."

Before she'd ever heard of the MMA, Tourdot was working part time as a salesperson and model for a St. Paul department store, where she eventually hoped to become an assistant buyer. When a friend interviewed with an employment agency, Tourdot went along to keep her company—and took some assessment tests on a whim. She didn't give it much thought afterward.

Later, while she and some friends were celebrating their graduation at a cabin in Forest Lake, Tourdot received a long-distance call from the employment agency. She was told that the Minnesota Medical Association was interested in hiring her and hoped she could come in for an interview the following Monday. Reluctant to end her post-graduation celebration so soon, she agreed to an interview on Thursday. She was hired that day.

Tourdot's first job at the MMA was in the mailroom, where she mastered the use of cumbersome equipment that she says would seem archaic today. After a few months, she was promoted to secretary for the communications department, where she worked part time for the Women's Auxiliary of the MMA, which changed its name to the MMA Auxiliary in 1975 and to the MMA Alliance in 1993.

Tourdot's responsibilities grew with the Alliance. She administered day-to-day operations, helped plan meetings, maintained membership records, and formed close relationships with many of the officers and members. Her skills made her indispensable to a group that was becoming a progressive, focused organization with its eye on serious social causes—from preschool vision and hearing screening to HIV/AIDS education and organ donation. Within a couple of years, Tourdot had turned a handful of secretarial tasks into a full-time career.

Tourdot's personal life also was taking on new dimensions. She married Earl Tourdot in 1962. When she gave birth to their son, Kurt, a year later, she returned to work—to the surprise of friends and co-workers—after six weeks of maternity leave. She did the same thing when she and Earl adopted their daughter, Kimberly, in 1970. "At that time, no one at the MMA had had a baby and come back," says Tourdot.

As a reminder of how society used to view women in the work force, Tourdot described trying to buy a home with her husband in 1966. Federal Housing Authority regulations excluded her income from the loan application. The assumption was that a woman's employment status was only temporary.

Defying the status quo ever since, Tourdot continues to distinguish herself in her long career at the MMA, where she now has the title Director of the Executive Office and Meeting Planning. Among Tourdot's responsibilities are supervision of CEO administrative functions and secretarial services, and provision of administrative services for the MMA Board of Trustees, North Central Medical Conference, and the MMA's AMA Delegation. Since 1987 she has coordinated the MMA Annual Meeting. Paul Sanders, M.D., MMA CEO, calls Tourdot his "right arm and part of the left."

"Karen has an invaluable sense of history. She has seen what works and what doesn't, and she remembers well. She has had a visible influence on both the MMA House of Delegates and the alliance," says Sanders. "She has the respect of her fellow employees and models a commendable work ethic not only for her peers, but for members of the association and the alliance as well."

Tourdot has her own take on her commitment to her work. When she describes her approach to her job, she likes to quote newspaper publisher Katharine Graham: "To love what you do and feel it has meaning—what could be more fun?"

Maybe the answer is to love what you do and feel it has meaning—for 40 years. MM

*Cynthia Lehman is a writer with the Minnesota Medical Association.*


**Air Force Healthcare. Good Pay. Professional Respect.**

**Why Do You Think We Say "Aim High"?**

Experience the best of everything. Best facilities. Best benefits. Outstanding opportunities for travel, 30 days vacation with pay, training and advancement.

**For an information packet call**
**1-800-423-USAF**
**or visit www.airforce.com.**

You'll see why we say, "Aim High."

AIM HIGH
AIR FORCE
HEALTH PROFESSIONS

**Emergency Medicine Opportunities**

**Emergency Practice Associates** provides quality emergency physician services. Our physicians work as independent contractors in a growth-oriented, physician-supported environment.

***full time opportunities***

| | |
|---|---|
| *GRAND RAPIDS, MN* | **Itasca Medical Center**<br>Medical Director and Staff Physician |
| *HIBBING, MN* | **University Medical Center–Mesabi**<br>Staff Physician |
| *LITTLE FALLS, MN* | **St. Gabriel's Hospital**<br>Medical Director and Staff Physician |
| *NEW ULM, MN* | **New Ulm Medical Center**<br>Medical Director and Staff Physician |

***part time opportunities***

| | |
|---|---|
| *AITKIN, MN* | **Riverwood Health Care Center** |
| *CROSBY, MN* | **Cuyuna Regional Medical Center** |
| *ST. PETER, MN* | **Community Hospital & Health Center** |

EMERGENCY PRACTICE ASSOCIATES
BOX 1260
WATERLOO, IA 50704
FAX: 319-236-3644

**Call the recruiting specialist today at 1-800-458-5003**
www.epamidwest.com

# GROUP PURCHASING



Brought to you by a partnership of

## Minnesota Medical Business Resources and Triium, Inc.

### Product and Service Coverage

- Office Supplies and Furniture
- Office Equipment
  Copiers, facsimiles, scanners, and more
- Medical Supplies
- Medical Equipment and Equipment Repair
- Employee Recruitment Services
- Individual Insurance Programs
  Life, health, long-term care, disability
- Employer-Sponsored Retirement Plans
- Printing Services
  Forms, statements, mailing services, and more
- Color-Coded Record Systems
- Promotional Merchandise
- Collection Services
- Cellular Phone Equipment and Air Time
- Auto Leasing and Purchasing Services
- Payor Reimbursement
  Auditing & Consulting
- Credit Union Services
- Secured Records Destruction
- Courier Services
- Payroll Processing Services

### Group Purchasing Advantages

Group Purchasing provides customers with a comprehensive purchasing program encompassing a large variety of services and products that supports physician practices' outsourcing needs. The goal of the program is to ensure customers receive excellent pricing and superior performance in all products and services offered.



### Group Purchasing Benefits

The Group Purchasing Program has experienced an average of **15%** savings for its customers. Other benefits of the Group Purchasing Program include negotiation and administration of supplier contracts, continual expansion of suppliers and services offered, volume and cost savings reporting for the individual practice, customer advocacy with suppliers, and dedicated, professional purchasing management.

TRIIUM, INC.

*Advancing Health Care with Data-Driven Solutions*

Call 612/797-0285 x109
e-mail: kmadsen@mspnetwork.com
internet: www.triium.com

MMBR
MINNESOTA MEDICAL BUSINESS RESOURCES OWNED BY MMA & HMS

**Minnesota Medical Business Resources**
Call 612/623-2860
e-mail: mmbr@mnmed.org
internet: mnmed.org/mmbr

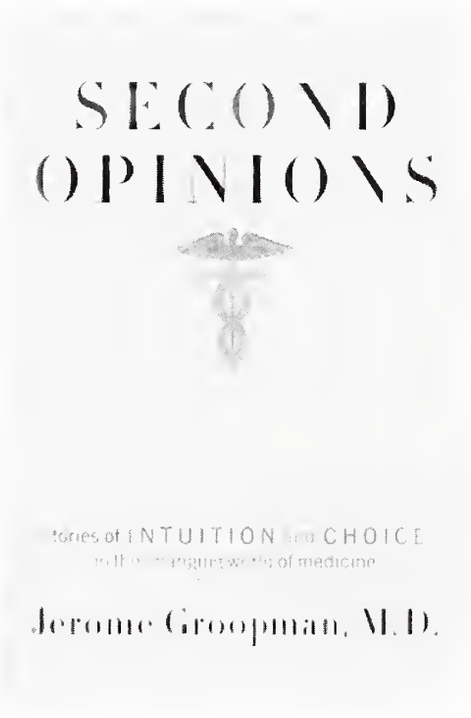
# Learning to Say 'I Don't Know'

*As these morality tales of medical errors show, arrogance and ignorance can endanger patients' lives.*

Reviewed by Charles R. Meyer, M.D.

The call from the ER came during a busy day at the office. A young woman had returned to the ER after being seen there the previous day for a severe sore throat. According to the ER doctor, her throat was red, she was coughing and bringing up a lot of saliva, and she had a high WBC but a negative strep culture. The ER doctor had done a lateral x-ray to look for pharyngeal swelling and it was negative. He was going to send her home with a prescription for penicillin. I agreed. Two hours later he called to say that her husband had returned from the pharmacy with her prescription and found her dead. The autopsy confirmed epiglottitis as the cause of death.

Physicians want to be right. They hate to be wrong. They like second chances at diagnostic problems, but they aren't good at second-guessing themselves, and, generally, they don't like second opinions that second-guess theirs. Second thoughts and second guesses abound in Harvard hematologist/oncologist Jerome Groopman's "Second Opinions: Stories of Intuition and Choice in the Changing World of Medicine" (Viking, 2000). Groopman's stories are morality tales of doctors' foibles and fallibility that offer valuable lessons for any medical practitioner.




Groopman starts with a story of his own personal and professional fallibility. While training for the Boston Marathon, he developed a lumbar disc herniation. Determined to find a quick fix that would allow him to run in the marathon, he shopped for a doctor who would agree to operate. His surgical outcome was disastrous; he was left with a permanent limp and a "more tempered view of medical interventions and an abiding sense of humility about my profession and my own practice."

All of Groopman's stories feel personal. His second chapter recounts the frightening saga of his firstborn son's nearly dying from an intussusception because first a family doctor treated the symptoms as "the flu" and then a third-year resident tried to defer surgery until the next day. Even when he and his family aren't the patients, Groopman portrays patients as friends he knows medically and personally. And that intimacy allows him to draw patients into their own care. "I want them to 'challenge me,'" he says. "Their sense of their own condition is vital in directing me how to investigate their malady."

Groopman tells stories of uncertainty. He is uncertain about diagnosis and treatment; his fellow physicians are uncertain; even pathologists waffle: "There is some degree of uncertainty, and thus some degree of risk, inherent in every clinical intervention." His solution is to acknowledge the unknown to yourself and your patients, trust both science and judgment, and enlist patients' help in the decision process: "This bond of mutual vigilance between doctor and patient is forged through the melding of knowledge and intuition."

Groopman tells tales of arrogance. Whether it is the cold, academic clinician attending his dying grandfather or the cocksure hematologist insisting on urgent bone marrow transplantation for one of Groopman's patients, doctors who are dogmatic, uncommunicative, and wrong appear throughout these stories. Patients' interests get lost in the clash of physicians' egos. Groopman urges doctors to learn to say "I don't know" and to cultivate careful listening, which is "the starting point for careful thinking."

And Groopman tells tales of how managed care has promoted, rather than prevented, medical error. A Hispanic woman treated twice elsewhere for a "routine" case of asthma presents to Groopman's hospital in respiratory failure with leukemic pulmonary infiltrates and a WBC of 220,000. When Groopman confronts the HMO doctor who saw her for her "asthma" but didn't do a WBC or chest x-ray, the doctor defends his

treatment as reasonable and cost-effective. Groopman sees this doctor and his system as led by algorithms, geared to "the standard and the generic ... [which] functions poorly in addressing the unusual and the individual." In a story about a patient who needed gamma interferon, Groopman condemns HMO medical directors interfering with patient care and responding only to "marching orders ... from higher-ups who want data."

The subtitle to "Second Opinions" contains its main take-home messages. Physicians have difficult, life-determining choices to make, using a science fraught with uncertainty. To make the "right" choices, avoid errors, or learn from their errors, doctors need to listen to patients and colleagues, to question patients, colleagues, and themselves, and to trust their intuition about patients and themselves. MM

*Charles Meyer is editor-in-chief of* Minnesota Medicine.


Clear blue skies, fresh air, wide-open spaces and clean lakes await you. MeritCare Medical Group is seeking talented, energetic physicians to join thriving, diverse practices.

MeritCare Medical Group is a 350-physician multi-specialty group with a strong primary care base and MeritCare Hospital is a 380-bed tertiary/trauma hospital. Fargo-Moorhead is a tri-college community of 160,000 with excellent public and parochial schools and a park department that provides activities for all age groups year round.

Recently named "All American City"

We are seeking BC/BE physicians in the following specialties:

**Adult Psychiatry**
**Anesthesiology**
**Cardiology & Electrophysiology**
**Child/Adolescent Psychiatry**
**Dermatology**
**EatingDisorders Clinician**
(PhD, PsyD or Masters prepared)
**Family Practice**
(Fargo, ND; E. Grand Forks, MN; Jamestown, ND)
**General Surgery** (Valley City, ND)
**Hematology/Oncology**
**Internal Medicine (Hospital)**
**Interventional Radiology**
**Neonatology**
**Nephrology**
**Neurology**
**Optometry (Mayville)**
**Orthopaedics (Fargo & Jamestown)**
**Otolaryngology**
**Pediatrics**
**Reproductive Endocrinology**
**Rheumatology**

Contact Kathleen Toft, Physician Recruiter, 737 Broadway, Fargo, ND 58123 or call 1-800-437-4010 or fax vitae to 701-234-2316. My e-mail address is kathetoft@meritcare.com or check our web site at www.meritcare.com

MeritCare Medical Group

EOE/AA Employer

**INTERNAL MEDICINE PHYSICIANS**

United Pain Center in St. Paul is seeking two BE/BC internal medicine physicians interested in working in a multidisciplinary setting managing patients with acute, subacute and chronic pain. This is a challenging opportunity to work with a highly motivated and successful team in an outpatient setting. The team consists of anesthesiologists, internal medicine, nurse practitioners, psychologist and social worker. Our center offers a unique blend of interventional procedures, case management, psychological services and complementary therapies with consultative services provided to the hospital. Contact Allina Hospitals and Clinics, Physician Recruitment, 8450 City Centre Drive, St. Paul, MN 55125.
800-248-4921 or
**recruit@allina.com.**
Not a J1 site.

www.allina.com

ALLINA.
Hospitals & Clinics

**LOOKING FOR LOCUM TENENS?**

LOOK FOR THE FRIENDLY DOCTOR



Whitesell
Medical Locums, Ltd.

Benefits for the Hospital/Clinic:
- Highly qualified physicians that are B.E./B.C.
- Fill your positions during illness, vacation and understaffing.
- Prevent loss of revenue.
- We handle all administrative details.
- Competitive rates

Benefits for the Physician:
- Experience a complete range of practice styles.
- Fully paid malpractice insurance
- Explore options or new services before making permanent decisions.
- A chance for senior physicians who no longer desire the responsibility of running a practice to stay clinically active.

Metro 763-682-5906
Toll Free 800-876-7171
Fax 763-684-0243
Web www.mnlocums.com

**Physician Employment Opportunities Available at WINONA CLINIC, LTD.**

**Internal Medicine**
*with concentrated area of study in Cardiology, Gastroenterology, or Neurology*
(position available in 2001)

**Orthopedic Surgery**
(position currently available)

**Pediatrics**
(position available in 2001)

Our staff of 30+ medical providers is looking forward to welcoming you, as you begin your practice at this thriving, independent, physician-owned, multi-specialty clinic, located in a family-oriented community situated along the Mississippi River in the beautiful bluff country of southeastern MN.

*For additional information, contact:*
**Administrator**
**Winona Clinic, Ltd.**
**420 East Sarnia Street**
**Winona, MN 55887**
**Phone: 507-457-7722**
**Fax: 507-457-7672**

## *First Call Physicians, Inc.*

*A Locum Tenens Service*
*500 Eighth Ave. S.*
*Buffalo, MN 55313*

**Clinics/Hospital** | **Physicians**

*Locums Coverage*
*=*
*Revenue*

- Patients falling through the gaps?
- Physician burn-out or illness?
- Shortage of physicians?

- Earn more with less time.
- No administrative headaches.
- Malpractice premium paid.

***Experience, Service, Honesty***
***Call (metro) 682-3852***
***(toll free) 888-682-3852***

***(You'll be glad you did!)***

MULTICARE ASSOCIATES OF THE TWIN CITIES

Multicare Associates of the Twin Cities, a multispecialty/multi-location clinic, located in the northern suburbs of Minneapolis/St. Paul, has available positions for BC/BE physicians in the following departments:

## Family Practice
## Internal Medicine
## OB/GYN

Excellent salary/benefits package includes paid insurance, flexible benefits plan, 401K, profit sharing, continuing medical education. Shareholder status potential after one year.

Contact Jeannine Schlottman
Administrator
7675 Madison St. NE
Fridley, MN 55432
763/785-3338
www.multicare-assoc.com

## Minnesota Opportunities

Delacore Resources, also known as *"The Minnesota Recruiter,"* has opportunities in Minnesota for the following types of physicians:

- **Dermatology**
- **Emergency Medicine**
- **Family Practice**
- **General Surgery**
- **Internal Medicine**
- **OB/GYN**
- **Orthopedic Surgery**
- **Pediatrics**
- **Psychiatry**

A detailed practice profile is available, or visit our website at **www.mnrecruiter.com**

*Contact The Minnesota Recruiter confidentially at*

**Delacore Resources**
**1-800-967-2711**
**FAX (320) 587-7252**
**delacore@hutchtel.net**

## North Memorial Health Care®

*An Organization of Health Care Professionals*

*North Memorial is an independent, full-service facility located in the northwest Twin Cities with more than 700 physicians in more than 40 specialties. We are known as the trauma center in the region with other notable programs including the Hubert H. Humphrey Cancer Center, North Heart Center, North Rehabilitation Center, and the Women's and Children's Center. We also strongly promote physician practice opportunities within our associated clinics, including those that are independently owned, joint ventures and hospital owned. Which means you can choose from large or small and multi or single specialty practice options in metro, suburban or rural locations. North Memorial offers very competitive salaries and excellent fringe benefits. Sounds like the perfect job, doesn't it?*

*Positions now available for BE/BC physicians in:*

- Family Practice
- OB/GYN
- Internal Medicine
- Gastroenterology
- Hematology/Oncology
- Emergency Medicine
- Pediatrics
- Maternal Fetal Medicine
- Urgent Care

For consideration to be a part of our team please mail, fax, or e-mail cover letter and C.V. to:

Mark A. Peterson, Physician Recruiter
North Memorial Health Care
3300 Oakdale Avenue North
Robbinsdale, MN 55422
Phone: (800) 275-4790 or (612) 520-1336
Fax: (612) 520-5997
E-mail: mark.peterson@northmemorial.com

# *A Calendar of Continuing Medical Education Courses*

*Provided as a service of the MMA Committee on Accreditation and CME.* For assistance with scheduling meetings or for information on future medical meetings and CME courses, please contact the MMA office: 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; 612/378-1875. For a complete listing of our calendar, visit the MMA Web site at www.mnmed.org. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

## JULY 2000

July 10-14 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

July 16-22 **Mayo Clinic Internal Medicine Certification and Recertification Board Reviews 2000** Mayo Foundation; Mayo Civic Center, Rochester, MN. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

July 28-29 **Interactive Approach to Setting Up a Lipid Clinic** Minnesota Medical Association in joint sponsorship with St. Paul Heart Clinic; DoubleTree Hotel-Minneapolis Airport at the Mall of America, Bloomington, MN. CONTACT: Patty Bowman, St. Paul Heart Clinic, 1600 St. John's Boulevard, #200, Maplewood, MN 55109; 651/747-8607.

## AUGUST 2000

Aug. 6-8 **Fifth Annual Mountain Course—Success with Failure: New Strategies for the Evaluation and Treatment of Congestive Heart Failure** Mayo Foundation; Chateau Whistler, Whistler, B.C., Canada. CONTACT: Registrars, Mayo School of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Aug. 18-19 **Inpatient Medicine: 1st Annual Midwest Regional (NAIP) Meeting** Mayo Foundation; Mayo Foundation, Rochester, MN. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Aug. 20-26 **Medical Ethics in the New Millennium** HealthEast Care System with the Minnesota Guild of the Catholic Medical Association; Hotel Giotto, Assisi, Italy. CONTACT: Annette Anderson, 1700 University Avenue West, St. Paul, MN 55104; 651/232-5104.

Aug. 21-25 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

## SEPTEMBER 2000

Sept. 5 **Endorectal Ultrasonography** Division of Colon and Rectal Surgery—University of Minnesota; Midway Health Service, St. Paul, MN. CONTACT: Continuing Medical Education, University of Minnesota, Suite 107, 615 Washington Avenue SE, Minneapolis, MN 55414; 612/626-7600, 800/776-8636 or fax 612/626-7766.

Sept. 6 **Pelvic Floor Workshop: Testing, Patient Simulation and Evaluation** Division of Colon and Rectal Surgery—University of Minnesota; Midway Health Service, St. Paul, MN. CONTACT: Continuing Medical Education, University of Minnesota, Suite 107, 615 Washington Avenue SE, Minneapolis, MN 55414; 612/626-7600, 800/776-8636 or fax 612/626-7766.

Sept. 7-9 **Principles of Colon and Rectal Surgery: Principles and Practice 2000** Division of Colon and Rectal Surgery–University of Minnesota; Hilton, Minneapolis, MN. CONTACT: Continuing Medical Education, University of Minnesota, Suite 107, 615 Washington Avenue SE, Minneapolis, MN 55414; 612/626-7600, 800/776-8636 or fax 612/626-7766.

Sept. 7-9 **The 2nd Mayo Vascular Symposium** Mayo Clinic, North American Chapter of the International Union on Angiology, American Venous Forum; Mayo Civic Center, Rochester, MN. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Sept. 11-15 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Sept. 14-16 **Practical Surgical Pathology** Mayo Foundation; Leighton Auditorium, Siebens Education Building, Mayo Clinic, Rochester, MN. CONTACT: Registrars, Mayo School of Continuing Medical Education, Mayo Clinic, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Sept. 15 **Screening Flexible Sigmoidoscopy** St. Mary's/Duluth Clinic Health System; St. Mary's Medical Center, Duluth, MN. CONTACT: Diane Torvick, St. Mary's/Duluth Clinic Health System, Education and Research, 400 East Third Street, Duluth, MN 55805; 218/786-3838.

Sept. 21-22 **10th Annual Practical Pediatrics for the Primary Care Physician—Focus Areas: Genetics, Infectious Disease, Nephrology and Neurology** Children's Hospitals and Clinics; Children's/United Heart and Lung Conference Center, St. Paul, MN. CONTACT: Betsy Julius, Medical Education, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/813-5884.

Sept. 22-23 **Mayo Clinic Update in Hepatology and Liver Transplantation** Mayo Foundation; Saint Paul Hotel, St. Paul, MN. CONTACT: Registrars, Mayo School of Continuing Medical Education, Mayo Clinic, 200 First Street SW, Rochester, MN 55905; 800/323-2688 or cme@mayo.edu.

Sept. 28-29 **Obstetrics and Gynecology Update** Institute for Research and Education; Naegele Auditorium, 7th Floor, Park Nicollet Clinic, 3800 Park Nicollet Boulevard, St. Louis Park, MN. CONTACT: Mary White, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 952/993-3531, e-mail: whitemj@hsmnet.com.

## OCTOBER 2000

Oct. 2-6 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Oct. 3-4 **Diabetes Conference** St. Mary's/Duluth Clinic Health System; Duluth Entertainment Convention Center, Duluth, MN. CONTACT: Catherine Koski, SMDC, Education & Research, 400 East Third Street, Duluth, MN 55805; 218/786-3854.

Oct. 7-8 **Clinical Autonomic Quantitation Workshop** Mayo Foundation; Mayo Clinic, Rochester, MN. CONTACT: Registrars, Mayo School of Continuing Medical Education, Mayo Clinic, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Oct. 12-14 **Strategies in Primary Care** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Marilyn Horstman, HealthPartners, Continuing Medical Education, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.

Oct. 13 **Dermatology Update** Institute for Research and Education; Naegele Auditorium, St. Louis Park, MN. CONTACT: Mary White, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 952/993-3531, e-mail: whitemj@hsmnet.com.

Oct. 27-28 **Thyroplasty: Theory and Practice** Minnesota Medical Association with Mayo Clinic Department of Otorhinolaryngology; Mayo Clinic, Rochester, MN. CONTACT: Barbara McLeod, Matrix Meetings, Inc., P.O. Box 1026, Rochester, MN 55905-1026; 507/288-5620.

Oct. 27-28 **Orthopedic Update** Institute for Research and Education; Radisson Hotel and Conference Center, Plymouth, MN. CONTACT: Mary White, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 952/993-3531, e-mail: whitemj@hsmnet.com.

**Brainerd Medical Center, P.A.**
**2024 South Sixth Street, Brainerd, MN 56401**
**218-828-7105 • www.brainerdclinic.com**

**PEDIATRIC OPPORTUNITY**

A Pediatric opportunity exists at Brainerd Medical Center. Would you like to live in a premiere vacation area in a community that will meet any family need?

If so, the Brainerd area is just for you! Look at the possibilities our multi-specialty clinic has to offer:

- No primary call
- Four day work week
- General Pediatric practice plus
- Enlarging consultative practice
- Active teaching program for med students and residents
- Excellent Family Practitioners
- Great Nurse Practitioners
- Superior Urgent Care and ER coverage
- Private Catholic hospital will exceed your expectations
- Above average income opportunity

To obtain more infromation about this Pediatric opportunity, please feel free to contact Pediatrician, Dr. Michael V. Severson, or Curt Nielsen, Clinic Administrator at the above address or phone number.

***Senior Vice President for Medical Affairs***

Avera Health is establishing a new senior management position of Senior Vice President for Medical Affairs. This full-time position will be located in Sioux Falls, South Dakota, and include extensive travel within the Avera Health service area in parts of SD, IA, MN, NE, and ND. The position will report directly to the President/CEO of Avera Health and be a member of Avera's Senior Management Team.

The key functions of this position include serving as a steward of relationships between Avera Health and physicians throughout the Avera Health service area, providing physician leadership to quality improvement and managed care initiatives of the system and serving as a physician advocate in Avera Health decision making.

Preferred candidates should have at least three years medical practice experience in the described geographical area, possess strong verbal and analytical skills, be team oriented and have medical staff/association leadership experience.

Salary will be competitive. Avera Health offers an exceptional benefit program.

Working with its partners Avera Health provides a quality, cost-effective health ministry which reflects Gospel values. Our vision is to improve the health care of the people we serve throughout a regionally integrated network of persons and institutions.

Inquiries or requests for more information should be addressed to:

**John T. Porter**
**President/CEO**
**Avera Health**
**P.O. Box 38**
**Yankton, SD 57078**
**Telephone: 605/322-7050**
**Fax: 605/322-7060**

Avera Health

*Avera Health is an Equal Opportunity Employer*

# Wouldn't you like a LOW-COST employee benefit?




**MMBR** has partnered with **IBM Mid America Employees Federal Credit Union** — one of the largest and most successful credit unions in the state — specifically for the benefit of your medical practice.

- IBM Mid America is driven by a mission of providing **high-quality service** — 98% of its members say the credit union either meets or exceeds their service expectations.*
- Some experts estimate that credit union membership can save the average American family **$400 to $500** a year.
- The credit union emphasizes **high savings rates, low loan rates,** minimal fees and convenient access through a combination of branch offices and state-of-the-art technology.

*To find out how the valuable benefit of credit union membership can be offered to your employees at* ***no cost*** *to you, call MMBR at* ***1-800-298-6627*** *or* ***612/623-2860.***

## Are you interested in an employee benefit that:

- Adds **real value** to your benefits package?
- Can help increase **employee retention?**
- Requires **no investment** of your administrative time?
- Is **easy to implement,** with no hassle?

* 1999 Service Quality Survey

IBM **MID AMERICA** EMPLOYEES FEDERAL CREDIT UNION

**MMBR**

MINNESOTA MEDICAL BUSINESS RESOURCES
OWNED BY MMA & HMS

**www.mnmed.org/mmbr • e-mail: mmbr@mnmed.org**

## NOVEMBER 2000

Nov. 2 **Geriatric Care for the Primary Care Physician** Mayo Foundation; Leighton Auditorium, Siebens Education Building, Mayo Foundation, Rochester, MN. CONTACT: Registrars, Mayo School of Continuing Medical Education, Mayo Clinic, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Nov. 3 **Spiritual Care Research: Applications to Practice** Mayo Continuing Nursing Education; Mayo Clinic, Rochester, MN. CONTACT: Mayo Continuing Nursing Education, Eisenberg S-41, 200 First Street SW, Rochester, MN 55905; 800/545-0357.

Nov. 3 **The First 24 Hours** Institute for Research and Education; Naegele Auditorium, St. Louis Park, MN. CONTACT: Mary White, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 952/993-3531, e-mail: whitemj@hsmnet.com.

Nov. 6-10 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Nov. 9-10 **Critical Care 2000** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Marilyn Horstman, HealthPartners, Continuing Medical Education, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.

Nov. 17-18 **14th Annual Primary Care Update** Institute for Research and Education; Radisson Hotel and Conference Center, Plymouth, MN. CONTACT: Mary White, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 952/993-3531, e-mail: whitemj@hsmnet.com.

## DECEMBER 2000

Dec. 4-8 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Dec. 7-8 **22nd Annual Cardiovascular Conference** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Marilyn Horstman, HealthPartners, Continuing Medical Education, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.

## FEBRUARY 2001

Feb. 5-9 **Mayo Foundation Presents: Gastroenterology and Hepatology for the 21st Century** Mayo Foundation; Hapuna Beach Prince Hotel, Mauna Kea Resort, Kohala Coast, Big Island of Hawaii. CONTACT: Registrars, Mayo Foundation, Mayo School of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

**80 years and Still Growing.**

*We're looking for BC/BE physicians for the following positions:*

**Internal Medicine/Family Practice**—We have multiple opportunities available in our internal medicine department and family practice departments at the main clinic in Mankato. The Mankato Clinic is a multi-specialty group practice with 75+ providers and a service area population of over 250,000. Our scenic riverside community has big city amenities, services, shopping and restaurants all without the traffic hassles.

**Radiology**—Exceptional opportunity to join our Radiology Department. Brand new, state-of-the-art volume acquisition multi-detector, spiral CT scanner on line in March necessitates expanding this well established department. This opportunity also includes reading MRI from the region's newest open MRI. Desirable call schedule provides time to enjoy life in this scenic river valley community.

We offer a guaranteed first year salary with incentive pay plan. Our full range of benefits includes a generous retirement plan and liberal time-off policy.

**For more information call Dr. Byron C. McGregor, Medical Director at 507-389-8548 or Dennis Davito, Director Physician Recruitment, 507-389-8654 or send CV.**

Mankato Clinic
1230 East Main Street
Mankato, MN 56002-8674
FAX: 507-388-3401

ASPEN Medical Group

Aspen Medical Group is a 160+ provider multi-specialty group with 9 clinics located throughout the Minneapolis / St. Paul metro area. We are currently seeking BE/BC physicians for the following specialties:

*Dermatology*
*Hospitalist*
*Internal Medicine*
*Urgent Care*

Aspen Medical Group is governed by its own physicians and health care providers. Guaranteed base salary available for the first two years. Competitive benefits package.

For further information, please contact:

Nancy Borgstrom, Provider Services Coordinator
1020 Bandana Boulevard West
Saint Paul, MN 55108
phone 651-641-7081 • fax 651-641-7151
e-mail nborgstr@aspenmed.org

EOE. No J-1 opportunities available.

# MEDSTAT

SPECIALIZED MEDICAL TRANSPORTATION

*"A VITAL LINK BETWEEN PATIENT AND PHYSICIAN."*

**DEDICATED TO ASSISTING**

**THE MEDICAL COMMUNITY**

**IN THE PROVISION OF**

**OPTIMAL PATIENT CARE**

**AND CLIENT SERVICES.**

Much more than a courier service, MEDSTAT can meet the unique needs of the medical community. MEDSTAT's relationship with MMBR allows MMA members and their clinics to receive medical transportation rates that are generally below that of traditional transportation companies.

## MEDSTAT is a unique transportation system that can provide you with the following:

- Medical interoffice transport
  PATIENT RECORDS, FILMS, OFFICE CORRESPONDENCE, ETC.
- Laboratory specimen pick up and delivery
- Blood transport services
- Medical distribution
- Medical supply pick up and delivery
- Medical vendor/medical provider transport
- Pharmacy distribution
  RETAIL, WHOLESALE, COMMERCIAL AND INTRAVENOUS
- Home health care/patient interactive pick up and delivery
- Limited on-demand services

MEDSTAT

SPECIALIZED MEDICAL TRANSPORTATION

***MEDSTAT SYSTEMS, INC.***
5155 East River Road, Suite 407
Fridley, MN 55421
Office: 612/586-8146
Toll free: 888/234-3618
Fax: 612/586-8147
email: vitallink@earthlink.net
www.medstatsystems.com

MMBR
MINNESOTA MEDICAL BUSINESS RESOURCES
OWNED BY MMA & HMS

**Minnesota Medical Business Resources**
3433 Broadway Street NE, Suite 395
Minneapolis, MN 55413
612/623-2860
e-mail: mmbr@mnmed.org
internet: mnmed.org/mmbr

# Office confusion?



# Office Depot and MMBR can help.

## The Office Supply Program

Minnesota Medical Business Resources and Office Depot are pleased to offer the following special program for members of the Minnesota Medical Association and their clinics.

The Office Supply Program includes:

- Up to 80% off list price on the items most frequently ordered by medical clinics.
- Average of 45% off list price on all other stocked items.
- 750 items of furniture available for next day delivery.
- Easy ordering via Fax or Internet—customized forms developed for your clinics based upon frequently ordered items.
- Retail market pricing on electronics, business machines and software.
- FREE next business day delivery to all of Minnesota.
- Retail store purchasing cards for your emergency needs, copies, specials. *Receive your contract pricing at our retail stores.*
- Quarterly rebate of 3% on stocked item purchases.

To establish an account or if you have questions, please contact:

**Brad Broman**
**Account Manager**
**Direct line: 612-513-4056 • Outstate: 800-392-4777 x4056**
**email: bbroman@officedepot.com**

Office DEPOT
Business Services Division

MMBR
Minnesota Medical Business Resources
Owned By MMA & HMS

# *Physician Opportunities and Miscellaneous Listings*

***Classified rates are $2.50 a word (300-word maximum). Minimum monthly charge is $50; with box number $5 additional. Ads will not be accepted by phone.***

- Placement of ads must be made six weeks before the date of publication, e.g., August 15 for October ad. Please send ad requests to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; or by fax, 612/378-3875; or e-mail, mm@mnmed.org.
- The publisher reserves the right to decline or withdraw advertisements. The publisher is not responsible for clerical or typographical errors and is not permitted to divulge the identity of advertisers who have replies sent to box numbers.
- Cancellation of ads must be made by the first of the month preceding month of issue.

---

**Quello Clinic, Ltd.:** Well-established, south suburban, physician-owned group seeking part/full-time OB/Gyn and family practice physicians to work in our regular day clinic. We are also seeking physicians to work at our urgent care sites. Contact medical director at 952/985-8931, or write Quello Clinic, Ltd., 7801 East Bush Lake Road, Suite 300, Bloomington, MN 55439. (6/00-R)

**Fairview Health Services:** Practice opportunities in urban, suburban, and semi-rural locations. Moonlighting and part-time urgent care opportunities also available. Please contact Fairview Physician Recruitment and Retention at 612/672-2288, 800/842-6469, fax: 612/672-2986, e-mail: recruit1@fairview.org or visit our Web site at www.fairview.org/recruitment. (6/00-R)

---

**Olmsted Medical Center** is seeking BC/BE physicians in family medicine, emergency medicine, and dermatology to join our 75-physician multispecialty group. Great opportunity for well-trained physicians to join a family-friendly group in a dynamic, progressive practice. In addition to its main office and hospital in Rochester, the Olmsted Medical Center system includes 11 branch office locations in southeastern Minnesota. Excellent salary and benefits, including health benefits, malpractice, spending accounts, educational funds, profit sharing, 401(k)/403(b), and relocation assistance. Send CV to Lois Till-Tarara, Olmsted Medical Center, 1650 Fourth Street SE, Rochester, MN 55904; 507/287-2430. Fax: 507/285-8973. (*3/99-R)

---

## Picture your future with ACMC... We think you'll fit right in!

ACMC is a 100+ multi-specialty group providing primary and secondary care in over 23 specialties in a network of 10 clinics in Southwestern and West Central Minnesota.

ACMC offers a secure practice among a well-established and respected physician owned group with a very competitive financial and benefits package.

Positions now available for BE/BC physicians in:

Benson: *Family Practice*

Litchfield: *Family Practice*

Marshall: *Family Practice, Internal Medicine, OB/Gyn*

Redwood Falls: *Family Practice, Internal Medicine*

Willmar: *Family Practice, Internal Medicine, Oncology, Orthopaedic Surgery, Gastroenterology, Anesthesia, Urology*

Please contact:

Kari Bredberg, Physician Recruitment
(320) 231-6366 • karib@acmc.com
Affiliated Community Medical Centers
101 Willmar Avenue SW • Willmar, MN 56201
www.acmc.com

*Affiliated* COMMUNITY *Medical Centers, P.A.*

## Park Nicollet Clinic HealthSystem Minnesota

**Family Practice**

**Internal Medicine**

Park Nicollet Clinic is seeking BE/BC Family Practice Physicians and General Internists to join our multi-specialty group in western and southern suburban Minneapolis.

Award-winning Park Nicollet Clinic is one of the largest multi-specialty clinics in the country with nearly 500 physicians and 270 clinical professionals practicing in 45 medical subspecialties. The clinic is nationally and locally recognized for its care improvement initiatives.

Park Nicollet Clinic offers a variety of practice settings ranging from small primary care settings to specialty care in larger sites. Wherever a physician practices, they have the collaboration of their colleagues in providing the finest care.

For immediate consideration, please fax, mail, or email your CV and cover letter to:

Missy Fisher, Clinician Recruiter
HealthSystem Minnesota Park Nicollet Clinic
3800 Park Nicollet Boulevard - 7N
Minneapolis, MN 55416
(612) 993-6025 or (888) 437-5004
(612) 993-2819 fax
***fishem@hsmnet.com***

Equal Opportunity/Affirmative Action Employer



Introducing the
# Thermal Brewing System
from US Office Products and MMBR

# "Coffee, anyone?"

**Enjoy fresh great-tasting coffee all day long. Here are a few reasons to consider adding the thermal brewing system and the US Office Products coffee service to your clinic:**

CALL 651/688-9384

TODAY FOR MORE

INFORMATION ON HOW TO

GET GREAT-TASTING

COFFEE IN YOUR CLINIC'S

BREAKROOM TOMORROW.

ASK FOR ANY OF

THESE MMA ACCOUNT

REPRESENTATIVES:

ERIC WICKAM,

MARIE CHRISTIANSON,

OR JIM CHRISTIANSON.

- ☑ Choose from an extensive line of excellent coffees ranging from as low a **4¢ per cup** to 12-13¢ per cup (for Starbucks). This offer provides MMBR Members special pricing lower than the already low pricing given any other US Office Products customers on coffee and related breakroom products.
- ☑ The patented thermal carafes provide hot fresh coffee for 12+ hours without using burners or additional heating.
  - No burnt-tasting coffee
  - No wasted, thrown-away coffee
  - No burners left on overnight
- ☑ Qualifying practices will receive a free coffee tasting and a free pack of Starbucks coffee.
- ☑ Great breakroom products when you need them; order your coffee over the phone or the internet and enjoy it in your breakroom tomorrow.

US Office Products℠

MMBR
Minnesota Medical Business Resources
Owned By MMA & HMS

Ridgeview CLINICS

**Ridgeview Clinics,** a mid-size primary care group of clinics located in the western metro area, is offering opportunities for:

**Family Practitioners** *(OB optional)*
**Internal Medicine Specialists**

These clinics have providers specializing in family practice-OB, internal medicine, occupational medicine and podiatry.

Ridgeview Clinics are affiliated with an independent, financially sound, 109-bed regional medical center in Waconia, Minnesota, with more than 200 physicians in 34 specialties.

Located in the southwest metro just minutes from Minneapolis/St. Paul, the area offers four-season recreational opportunities, top-rated schools and dynamic, growing communities.

Ridgeview Clinics offer a production-based compensation package including a competitive salary and full benefits.

Please mail, fax or e-mail cover letter and C.V. to:

**Jon Rauen**
**Ridgeview Clinics**
**470 West 78th Street**
**Chanhassen, MN 55317**
**phone: 952/934-0570**
**fax: 952/906-7894**
**email: jon. rauen@ridgeviewmedical.org**

EOE/AA

**Falls Medical Search Seeks Physicians** for practice opportunities locally and nationally. To explore new practice options confidentially, send your CV or call Pat Falls, Falls Medical Search, 34 Forest Dale Road, Minneapolis, MN 55410; 612/922-0207 or 800/383-8916. (*5/92-R)

---

**Receivables Financing:** Truth is ... physicians face a tremendous financial burden—delayed payments from third-party payers. We have a program that lets you use your receivables—income you've already earned—in the time frame that best suits your needs. Don't let your receivables keep you waiting. Contact us today. Kaufman Medical Funding, 612/470-7900. (4/00-R)

---

**MDsearch** assists medical groups and hospitals in their recruiting efforts. For confidential information on opportunities in the Upper Midwest, send CV and/or call collect Mary Jo Cordes, MDsearch, P.O. Box 21507, St. Paul, MN 55121; 651/454-7291. Fax: 651/454-7277. (2/93-R)

---

**Emergency Medicine:** Flexible lifestyle offered. Weekends, or work 3–9 days and have 20–27 off. Regional group staffing low-moderate volume ERs in northern Minnesota, Wisconsin, and northern Iowa. Contact: Brad McDonald, M.D., Wapiti Medical Group, 888/292-2036. (3-7/00)

---

**Weber Law Office:** Focusing on the professional and personal legal needs of the health professional. Former attorney for the Board of Medical Practice. Over six years with the Minnesota Attorney General's Office. Committed to the best legal outcome possible through diligence and resourcefulness. 612/296-8080; www.weber-law.com. (6-12/00)

---

**Twin Cities Medical Imaging** facility seeking licensed radiologist to perform x-ray and MRI interpretation. For more information, call 612/220-4252. (1-7/00)

---

# MSBC takes care of everything you need.



Your colleagues have honored you by electing you to serve as an officer of your society. They respect your professionalism and leadership skills. You've got the ideas and ambition it takes to make your society an integral part of your profession.

However, the thought of you and your office staff taking time away from patients to manage the day-to-day activities of your society somehow takes away the thrill of what should be a very exciting time for you.

Management Services By Choice (MSBC), a program of the Minnesota Medical Association, can help. MSBC offers a wide range of affordable, efficient services designed to meet the administrative needs of medical societies, large or small. Our professional staff will work directly with you to expand, improve, or develop new programs to best serve your membership.

**Here are some examples of what our clients say about us:**

**"I wholeheartedly encourage any specialty organization to engage this highly professional management service. It is well worth the minimal expense involved."**

**"I don't know how you do it all the time, but the meeting was fabulous! It couldn't have been better, it couldn't have been more precise, and everything worked. You are fantastic!"**

MSBC
MANAGEMENT SERVICES BY CHOICE
A PROGRAM SPONSORED BY THE MMA

**For more information, call 612/378-1875 or 800/342-5662, or visit our Web site at www.mnmed.org/MSBC.**

## ***Dr. Carol Ley,*** *continued from page 8*

"My husband likes to win, and I like to talk to the people around me."

Ley says she is amazed at the confidence and athletic prowess girls are encouraged to develop these days. "My oldest daughter wants to be an orthopedic surgeon. The second one wants to be a hockey player. Imagine having a daughter who thinks she'll be a hockey player! There were only about four career choices for girls when I was little. I wrote my school career paper on being a flight attendant." Ever diplomatic, she quickly adds, "Not that there's anything wrong with that career."

Diplomacy serves Ley well in all aspects of her life. "Carol has a way about her—she can get anyone to do anything," says McGinley. "She'll rope me in on a project, and I'll find myself thinking, 'How do you say no to a person like Carol Ley?' " MM

*Anne Welsbacher is a writer living in Minneapolis.*

JULY 2000 INDEX TO ADVERTISERS


Acute Care, Inc. ..... 45
Affiliated Community Medical Centers ..... 59
Air Force ..... 48
Alexandria Clinic, P.A. ..... 28
Allina ..... 51
Allina Continuing Education ..... 17
Aspen Medical Group ..... 56
Avera Health ..... 54
Bethesda Lutheran Hospital/HealthEast ..... Cover 2
Brainerd Medical Center ..... 28, 54
CentraCare Clinic ..... 32
Consulting Radiologists, Ltd./Edina Imaging Center ..... 9
Delacore Resources ..... 52
Emergency Practice Associates ..... 48
First Call Physicians, Inc. ..... 52
HealthSystem Minnesota/Park Nicollet ..... 59
Leonard, Street & Deinard ..... 28
Management Services by Choice ..... 62
Mankato Clinic ..... 56
Medical Protective Co. ..... 42
MeritCare ..... 51
Midwest Medical Insurance Co. ..... 16, 46
Minnesota Physicians Foundation ..... Cover 3
MMBR ..... 49, 55, 57, 58, 60
Montevideo Clinic ..... 63
Multicare Associates of the Twin Cities ..... 32, 52
Mutual Insurance Company of America ..... 3
North Memorial Healthcare ..... 52
Owatonna Clinic-Mayo Health Systems ..... 63
Regions Hospital ..... Cover 4
Ridgeview Medical Center ..... 61
University of Minnesota Continuing Medical Education ..... 22
Vencor ..... 5
Whitesell Medical Locums, Ltd. ..... 51
Winona Clinic, Ltd. ..... 51



The best of both — A place to practice. A place to live.

Owatonna Clinic offers physicians local practice autonomy and access to Mayo Clinic's expertise in clinical medicine, education and research.

Opportunities to join our team are available in:

- Dermatology
- Family Medicine
- Internal Medicine
- Obstetrics and Gynecology
- Orthopedic Surgery

To learn more about our wonderful city and clinic, visit us at owtclinic.org

**Contact David Berg at 507-455-4441 or berg.david2@mayo.edu**

Owatonna Clinic

*Mayo Health System*

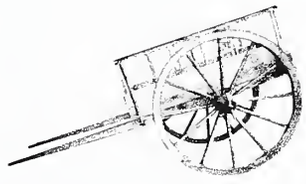
BC/BE FP's

GO

WEST...

CLAIM YOUR FUTURE...

- Independent Practice
- Physician Owned Clinic
- Great Compensation
- Great Benefits



Montevideo CLINIC, P.A.

EXPLORE THE POSSIBILITIES.

www.MontevideoMedical.com

# Why You Must Write Badly ... Once You Get Started, That Is

James Kaufmann, Ph.D.

You've done some prewriting, so you have things to say and a planned order to say them in (see column in May 2000 issue). Now you're ready for the next stage: writing. To overcome the inertia, it helps to have tricks to get started.

There are no tricks, of course. For many experienced writers, writing is a matter of "just plain going at it, in pain and delight" (novelist John Hersey). Still, one of the tactics below may help induce the flow of ink, or the creep of the cursor across the screen.

- Freewrite. Writing rapidly, paying no heed to correctness, style, or even clarity, is not as easy as it sounds. But if you can temporarily suspend your natural tendency to critique, you'll find your efforts rewarded. This prewriting technique also works during the writing stage.
- Think of your first attempt as a "zero draft." If it's not even a first draft, how good does it have to be? Like freewriting, a zero draft is a way to temporarily silence the editor within, whose voice is essential at a later stage but harmful while you're writing.
- Write the easy part first. No one says you must write the first part first. In fact, because the beginning is often an introduction, it may be easier to write the first part later, when you have a better idea of what you're introducing. Start wherever you can.
- Change something in your routine. If you write often, fight monotony by writing in a different place or at a different time of day. Or write with a different pen or pencil, or (at the computer) in a different font.
- Read an author you like. If there is a physician-author whose writing you admire, read something by that person. Good writers can inspire others to write.

Whatever means you use to get started (including sheer willpower), your initial drafting may require more than one writing session. If so, when you're ready to stop writing, make a note about what to write next. It will help you get started again later.

## *The Need for Bad Writing*

Some people believe that their prewriting efforts allow them to arrive at their meaning, and that the writing stage merely consists of scribbling that meaning down. If only it were that simple.

By working carefully during the prewriting stage, you can make most of the meaning that will appear in the finished product. However, some meaning remains to be made when you start to write, and none of the statements you plan to make can win your final approval until you get them down and see what they look like.

At first your statements won't look good. I'm not suggesting that they will lack grace or good grammar. They will be ambiguous, imprecise, or unclear. Some will even be factually inaccurate. The argument will lack key components and will be encumbered by extraneous material. In short, the piece will be a mess. You will probably experience frustration and despair. You may question the career decisions that brought you to this pretty pass.

If, or rather, when this happens to you, understand that this is what the writing stage of the process is like. We reach our final meaning after repeated attempts, and the early attempts are crude approximations at best. As Peter Elbow says in "Writing Without Teachers" (New York: Oxford, 1973, 1998), "You must start by writing the wrong meanings in the wrong words; but keep writing till you get to the right meanings in the right words." In my paraphrase of this sentiment, you must write badly before you can write well, every single time.

## *The Important Thing to Remember*

You're just drafting at this stage in the process. It's *supposed* to be imperfect. Your only goal is to generate text that you can begin shaping in the next stage. So write as much as you can, as fast as you can, without critiquing. And trust your future self to finish the job. MM

*James Kaufmann is an editor in the Section of Scientific Publications at Mayo Clinic, in Rochester.* *Copyright 2000 Mayo Foundation*

Med Students Learn Empathy • Reducing Infant Deaths • Poverty and Low Immunization Rates

# Minnesota Medicine

A JOURNAL OF CLINICAL AND HEALTH AFFAIRS



HS/HSL
UNIVERSITY OF MARYLAND AT
BALTIMORE
STACKS
AUG 22 2000
STACKS
REC'D
NOT IN CIRC.

11968-40932 Exp: 12/2000
Univ. of Maryland
Health Sciences Lib.
601 W Lombard St
Baltimore, MD 21201

## Where Medicine Meets the Road

IMPAIRED DRIVERS, AIR BAG SAFETY, RDAD RAGE

AUGUST 2000




# Regions Hospital Direct

## 24-Hour Physician-to-Physician Hotline 1-888-588-9855

At Regions Hospital, we provide physicians with new and better ways to care for patients. Regions Hospital Direct is a toll-free physician hotline that gives doctors throughout Minnesota and the region 24-hour access to physician consultation, information and referral services. Whether you need to consult a specialist, check on a patient's progress, transfer a patient to the Emergency Center or initiate admission of a patient, you're just a phone call away with Regions Hospital Direct. It's one more way Regions Hospital works with physicians to be the hospital of choice in the community.




*Building To Be The Best*

Regions Hospital®

640 Jackson Street, St. Paul, MN

© 2000 HealthPartners, Inc., Minneapolis, MN

# Minnesota Medicine

Published monthly by the Minnesota Medical Association



COVER

*Where medicine meets the road. See stories on pages 6, 22, 25, 57, 58, and 61. Illustration © Glenn Ryan/i2i Art.*

DEPARTMENTS

2 ..... Editor's Note

33 ..... MMA News & Views

41 ..... Author Instructions

63 ..... CME in Minnesota

67 ..... Classified Ads

68 ..... Index to Advertisers

BOOK REVIEW

**Driving in the Sane Lane,** a review by John Van Etta, M.D., page 61.

*In "Steering Clear of Highway Madness: A Driver's Guide to Curbing Stress and Strain," psychiatrist John Larson, M.D., advises uptight drivers on how to change their ways behind the wheel.*

FACE TO FACE

6 **More Rest for the Weary** ..... Susan Maas

*Neurologist Mark Mahowald, M.D., says our 24-hour society must wake up to the personal and public health risks of sleep debt.*

PERSPECTIVES

10 **The Last Bus of the Night** ..... Amelia Mari Merz

*A medical student learns a lesson on the bus ride home.*

FEATURE STORY

14 **Learning the Art of Medicine** ..... Jodi Ohlsen Read

*New medical students at the University of Minnesota learn how to become insightful, empathic doctors.*

EDITORIALS

20 **The Interplay of Poverty and Adverse Health Outcomes** ..... Charles Oberg, M.D.

*Physicians must help break the link between poverty and poor health.*

22 **Impaired Drivers** ..... Herbert Rakatansky, M.D.

*Recent AMA guidelines describe the responsibilities of physicians who have patients that are not fit to drive.*

CLINICAL & HEALTH AFFAIRS

25 **Eyes Wide Shut: The Dangers of Sleepy Driving** ..... Mark W. Mahowald, M.D.

43 **Project LID (Lower Infant Deaths): Lessons Learned from a Local Infant Mortality Review Project** .....
Cheryl Fogarty, M.P.H., B.S.N., Abbey Sidebottom, M.P.H., Neal Holtan, M.D., M.P.H., and Virginia Lupo, M.D.

51 **The Association of Poverty and Low Immunization Rates in ZIP Code Areas: A Retrospective Survey of Minnesota Kindergartners** ..... Alan R. Lifson, M.D., M.P.H., Margaret Roddy, M.P.H., and Kristen R. Ehresmann, R.N., M.P.H.

PUBLIC HEALTH REPORT

57 **Air Bags: An Imperfect and Incomplete Solution** ..... Jon S. Roesler, M.S., and Mark R. Kinde, M.P.H.

*New technology has helped reduce injuries from motor vehicle crashes, but there's still room for improvement.*

58 **Keeping Kids Safe During the Drive** ..... Kelly L.P. Sabo

*Physicians can help their patients learn the law and the proper methods for securing children in motor vehicles.*

# Heart and Soul

I attended a panel discussion on managed care at my recent college reunion. After brief presentations by panel members, a torrent of diatribes ensued from physicians in the audience, bemoaning the demise of the practice of medicine. A nonphysician retiree reported that he was unable to find a doctor in Maryland who would take a new Medicare patient. The physicians in the audience explained that they couldn't afford Medicare patients. Finally, a woman from the Class of 1995 stood up and said, "I just graduated from medical school this week. I went to medical school to learn how to take care of patients. Please tell me the profession I'm entering is not all about payments and paperwork." She finished her plea in tears.



*"What should we tell prospective doctors? Is medicine still a worthwhile profession?"*

What should we tell prospective doctors? Is medicine still a worthwhile profession? Is it even a profession? The Clinical Medicine I seminar for first-year medical students at the University of Minnesota is intended to answer those questions (see feature story, page 14). On four Wednesdays in September, first-year medical students who have just "met" their cadavers and hefted their new medical textbooks meet with practicing physicians like me to glimpse medicine through the eyes of poets Pablo Neruda, W.H. Auden, and Jack Coulehan, M.D., and essayists Richard Selzer, M.D., Steven Miles, M.D., and Abraham Verghese, M.D. The title of the seminar is "Professionalism," but I'm not sure that tells the whole story.

"Professional" conjures up images of distinguished, gray-haired practitioners gliding through their day applying science and technology with ease and aloofness. But what Clin Med I readings reveal are vulnerable humans with special technical skills trying to help other humans deal with pain, disease, and death. The goal of the seminar is to ensure that these awestruck, idealistic, first-week medical students not only will learn science and technology in their next four years, but also will carry through those years the indelible image of Howard Spiro, M.D., defining empathy for doctors, of Abraham Verghese, M.D., agonizing over end-of-life decisions with an AIDS victim's family, and of journalist Anatole Broyard describing what a doctor can mean to a dying patient in the final days.

The Clin Med I seminar teaches medicine's "soft" stuff. What's valuable about this nonscientific side of the profession of medicine is portrayed beautifully in a story in Jerome Groopman's "The Measure of Our Days: New Beginnings at Life's End." Dan, a hemophiliac physician who acquires AIDS from multiple blood product transfusions, describes with the insight of doctor as patient what being a medical professional means:

"[M]edicine allows you to live a *moral* life. You know how they always ask you at your medical school interview: 'Why do you want to be a doctor?' Most people say they want to help mankind. ... You might say that every profession provides the opportunity to help mankind. But other professions are not as *consistent* as medicine in doing this, and not always as clearly moral. ... Medicine offers the possibility, the choice of a *fundamentally* moral profession. You work as a team with your colleagues. You have the same goals as your patient: to cure the disease, to return him to health. You don't have to compromise kindness or caring for the sake of success."

About two weeks into the Clin Med I seminar, I noticed my students shifting in their seats, glancing toward their anatomy books, and calculating that night's reading of real science, the "hard" stuff. After 23 years of practice, I value the "soft" stuff more every day. I know I need to know the science to help people. But I also know that enjoying the poetry of medicine, celebrating the morality of medicine, and welcoming the reason for medicine—the patient—is what true professionalism is all about. It's what makes this job more than a job.

*–Charles R. Meyer, M.D., Editor-in-Chief*




MMIC CONSULTING...FOR THE INFORMATION SIDE OF YOUR BUSINESS

### Information systems designed with your unique needs in mind

Our experts understand the nuances of your healthcare business; in fact, it's our specialty. We'll work with you, assessing your current systems, and recommending cost-effective solutions. From software selection to its tactical implementation, we'll partner with you every step of the way including re-engineering your workflow to assure the complete success of your new system.

### Solutions that support your data infrastructure

Creating an efficient and private data infrastructure which allows your computers, users and application software to communicate with each other is essential. Our trained and certified technicians will install, configure and fine-tune your network to meet your communication needs.

***To learn more about MMIC Consulting, call 1-800-328-5532 or visit us at www.mmicconsulting.com***

### A full spectrum of Internet services

MMIC Consulting can expertly develop and host your Web site. We can also set up your Intranet or Extranet. Our secure servers meet all HIPAA security standards, so you can rest assured your environment is safe. We'll also monitor each aspect of system performance and support your user community with training and help desk services.

MMIC Consulting is the IT consulting operation of Midwest Medical Insurance Company

# *Minnesota Medicine*

Published monthly by the Minnesota Medical Association

*Owner and Publisher*
Minnesota Medical Association

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Managing Editor*
Meredith McNab

*Associate Editors*
Margaret Parker
Carmen Peota

*Publications Assistant*
Katie Ocel

*MMA News & Views Editor*
Lorrie Holmgren

*MMA News & Views Writer*
Cynthia Lehman

*Graphic Designers*
Barbara Gerbig
Katie Ocel

Send manuscripts, subscriptions, and other material for consideration to *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/378-1875. E-mail: mm@mnmed.org
The editors reserve the right to reject editorial, scientific, or advertising material submitted for publication in *Minnesota Medicine*. The views expressed in this journal do not necessarily represent those of the Minnesota Medical Association, its editors, or any of its constituents. Annual subscription–$40. Single copies–$3.50. Canadian–$70. Foreign–$70.

*To Advertise:* Contact Michele Holzwarth, *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/623-2880 or 800/DIAL MMA (342-5662).



**Advisory Committee**

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Advisory Committee*
Charles R. Meyer, M.D.
Edmund C. Burke, M.D.
Richard C. Lussky, M.D.
Lynne Ogawa, M.D.
Paul S. Sanders, M.D.
Leif I. Solberg, M.D.
Barbara P. Yawn, M.D.
Meredith McNab, staff

*Editors Emeritus*
Edmund C. Burke, M.D.
1991-1993

Richard L. Reece, M.D.
1975-1990

Reuben Berman, M.D.
1971-1974

Carl O. Rice, M.D.
1961-1970



**Copyright & Post Office Entry**

*Minnesota Medicine* (ISSN 0026-556X) is published on the fifth of each month by the Minnesota Medical Association, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761, copyright 2000. Permission to reproduce editorial material in this magazine must be obtained from *Minnesota Medicine*. Periodicals postage paid at Minneapolis, Minnesota, and at additional mailing offices. POSTMASTER, send address changes to *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761. (USPS 3519000.)



MINNESOTA MEDICAL ASSOCIATION

**1999–2000 Officers**

*President*
John M. Van Etta, M.D.

*President-Elect*
Blanton Bessinger, M.D.

*Chair, Board of Trustees*
Robert K. Meiches, M.D.

*Vice President*
Kevin C. Fleming, M.D.

*Secretary*
David L. Estrin, M.D.

*Treasurer*
Noel R. Peterson, M.D.

*Speaker of the House*
Gary D. Hanovich, M.D.

*Vice Speaker of the House*
Rebecca Jean Hafner, M.D.

*Past President*
Judith F. Shank, M.D.

*Chief Executive Officer*
Paul S. Sanders, M.D.

**MMA Senior Staff**

*Director of Communications*
Lorrie Holmgren

*Chief Financial Officer*
George C. Lohmer Jr.

*Director of State and Federal Legislation*
David Renner

*Director of Health Law*
Christina F. Rich, J.D.

*Director of Health Economics and Policy Analysis*
Janet Silversmith

*Director of Executive Office*
Karen A. Tourdot

**Alliance**

*President*
Diane Gayes

*President-Elect*
Pam Schmidt

**Board of Trustees**

*N.W. District*
Jerry P. Rogers, M.D.

*N.E. District*
James L. Anderson, M.D.
Charles R. Helleloid, M.D.

*N. Central District*
James J. Dehen Jr., M.D.
Keith D. Larson, M.D.

*West Metro*
Lee Beecher, M.D.
Karen K. Dickson, M.D.
John W. Larsen, M.D.
Robert K. Meiches, M.D.
Henry T. Smith, M.D.

*East Metro*
Thomas Dunkel, M.D.
Joseph L. Rigatuso, M.D.

*S.W. District*
Terence P. Cahill, M.D.
Elton G. Wing, M.D.

*S.E. District*
Peter Amadio, M.D.
G. Richard Geier Jr., M.D.
Kimberly McKeon, M.D.

*Resident Member*
Andrew G. Moore, M.D.

*Medical Student*
Joel V. Oberstar

**AMA**

*AMA Delegates*
Robert D. Christensen, M.D.
Frank J. Indihar, M.D.
Carolyn J. McKay, M.D.
Lyle Munneke, M.D.
Audrey M. Nelson, M.D., *Chair*
Thomas L. Peyla, M.D.
Andrew J.K. Smith, M.D.

*AMA Alternates*
Raymond G. Christensen, M.D.
Kenneth W. Crabb, M.D.
Anthony C. Jaspers, M.D.
Paul C. Matson, M.D.
Sally Trippel, M.D.
John M. Van Etta, M.D.
Benjamin H. Whitten, M.D.



**MMA Address**

Minnesota Medical Association
3433 Broadway Street NE, Suite 300
Minneapolis, MN 55413-1761
Phone: 612/378-1875 or 800 DIAL MMA (342-5662)
Fax: 612/378-3875
E-mail: mma@mnmed.org
Web site: www.mnmed.org

# CME @ HCMC

**Hennepin County Medical Center (HCMC) is one of the major teaching hospitals in Minnesota. Continuing Medical Education (CME), formerly known as the Office of Academic Affairs, was established at HCMC in 1983.**

The mission of HCMC's CME Program is: "to provide organized, planned education activities to help physicians improve delivery of medical care."

## ACCREDITATION

Hennepin County Medical Center is accredited by the Minnesota Medical Association (MMA) to sponsor Continuing Medical Education for physicians.

Hennepin County Medical Center designates hour-per-hour credit hours in category 1 of the Physician's Recognition Award of the American Medical Association.

## FOR MORE INFORMATION

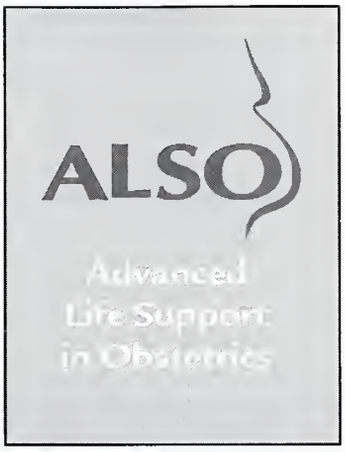
We would like to hear your comments and suggestions for future CME activites!

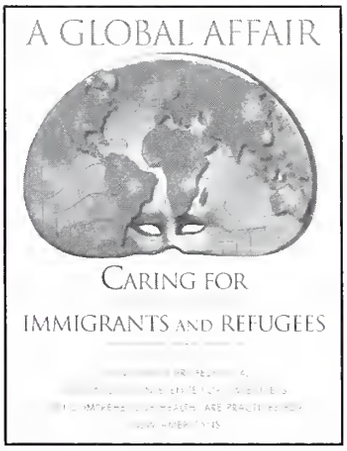
**Hennepin County Medical Center**
Continuing Medical Education
701 Park Avenue, Mail Code 861-B
Minneapolis, Minnesota 55415-1829

612-347-2075 Fax: 612-904-4210
Toll Free: 888-263-4262
Email: robin.hoppenrath@co.hennepin.mn.us

## EMS CERTIFICATION COURSES

Emergency Medical Services offers numerous courses throughout the year. To request a listing of classes or a course brochure, please call 612-347-5681. Visit the EMS Website at www.HCMC.org/DEPTS/EM/EMSED.




# FALL 2000 CONFERENCES:

**September 15-16**
Advanced Life Support in Obstetrics

**September 29**
Contemporary Issues in Dialysis

**October 5-6**
Annual Forensic Science Seminar

**October TBA**
Electrocardiography for Primary Care Physicians

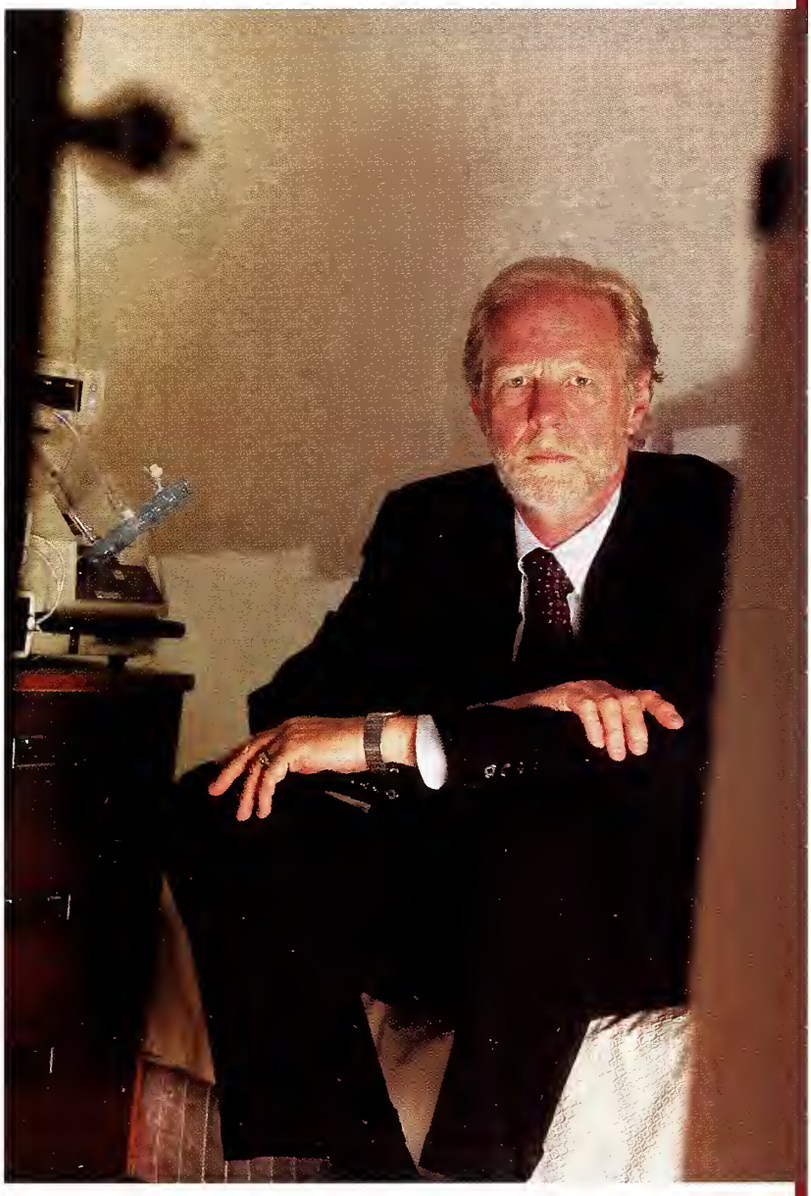
**November 2-4**
Annual Orthopaedic and Trauma Seminar

**November 3**
A Global Affair: Caring for Immigrants and Refugees

**November 10**
Annual Minneapolis/St. Paul Diabetes Forum

**December 8**
Ninth Annual Family Practice Update

Hennepin County Medical Center
HCMC
Level 1 Trauma Center



PHOTOGRAPH BY JOHN NOLTNER

# More Rest for the Weary

NEUROLOGIST AND RESEARCHER MARK MAHOWALD, M.D., SAYS OUR 24-HOUR SOCIETY MUST WAKE UP TO THE PERSONAL AND PUBLIC HEALTH RISKS OF SLEEP DEBT.

By Susan Maas

It's tempting to call Mark Mahowald, M.D., "tireless" in his efforts to promote a more well-rested—and consequently, safer—society. But he'd politely take issue with the adjective: After all, sleep specialists need a good night's rest just like anyone else. So let's just say he's energetic.

Mahowald, director and co-founder of the Minnesota Regional Sleep Disorders Center (MRSDC) at Hennepin County Medical Center (HCMC), laughingly evades the question of exactly how much sleep he gets. "I always get enough to stay awake when I drive and stay alert when I work." Part of his mission is helping others do the same, in hopes of preventing thousands of accidents each year.

Colleagues call the affable Minnesota-bred neurologist a "founding father" of his field. When he was running the EEG lab at HCMC in the mid-1970s, there were only two places in the nation—Montefiore Hospital in New York and Stanford University—where he could refer patients with sleep complaints. Mahowald and neurologist Milton Ettinger, M.D., then chief of neurology at HCMC, saw a "clinical necessity" for a sleep disorders center in the Midwest and set about creating one from scratch.

With nothing but their own ingenuity to guide them, the two began conducting polysomnographic studies on equipment Mahowald built in his living room. The countless middle-of-the-night sleep studies Mahowald performed in those early years make him grateful for the MRSDC staff. "I particularly appreciate good technologists," he says, acknowledging the sleep deprivation imposed by their job.

Though the need for the sleep center was clear, Mahowald and Ettinger initially thought the demand was limited. "We wondered what would happen when we ran out of the 10 patients who had apnea," Mahowald chuckles. "Obviously, we were proven *very* wrong." Today the MRSDC's multidisciplinary team—which includes neurologists, pulmonologists, psychiatrists, otolaryngologists, and pediatricians—performs more than 1,000 sleep studies each year. They've also trained more than 260 medical students, residents, and fellows in sleep medicine.

Research at MRSDC led to the first documentation of REM sleep behavior disorder (RBD), a rare condition primarily characterized by the absence of the mild paralysis experienced by normal sleepers during rapid eye movement sleep. People with RBD are able to physically act out their dreams and nightmares, posing serious danger to themselves and their bed partners. Mahowald is also a worldwide authority on the forensic implications of sleep-related violence. "Parasomnias can cause extremely complex, violent behaviors in normally law-abiding people," Mahowald says. For example, he once treated a mild-mannered patient who while asleep mistook his wife for a figure in his dream and attempted to strangle her. The MRSDC team led the way in dispelling the long-held belief that parasomnias stem from underlying psychiatric disease, Mahowald says.

Mahowald is no ivory-tower clinician—his work extends far beyond the lab. He feels a responsibility to use what the MRSDC team learns, not only for the good of its patients, but for society as a whole. "We're very committed to education—of [medical students] and of the general public—and to public policy, as are HCMC and its physicians."

A recent example of the sleep center's far-reaching impact was the successful "sleepy teens" campaign that Mahowald initiated and the Minnesota Medical Association promoted. In the mid-1990s, high schools in Minneapolis and Edina instituted later start times as a result of widely publicized research by Mahowald and his colleagues that showed teens function better in the classroom if they sleep longer in the morning. This spring Edina earned the "Healthy Sleep Capital of the Nation Award," presented by the National Sleep Foundation and Select Comfort Beds.

Mahowald downplays his leadership role in pioneering the later start times, a schedule that is catching on at schools across the country. "We've been very lucky—if the MMA had not thought this was a worthwhile issue to help us with, and if Minnesota were not an extraordinarily progressive state, this wouldn't have happened," Mahowald says. "The MMA cannot underestimate its influence as a vehicle for converting medical discoveries into good public policy.

Mahowald's colleague Connie Ullevig, R.N., who has worked at the sleep center since 1991, says Mahowald "never" turns down a speaking engagement and donates all honoraria to the MRSDC Research and Education Fund. "He's altruistic; he's a person of action. He says, 'Let's look at this

information and see how we can change things to make life better.' "

The danger of driving while sleep-impaired is Mahowald's current public policy emphasis (see article on page 25). He is also beginning his next, related "crusade": issuing a wakeup call about the problem of sleepy truckers. "A third of fatal-to-the-trucker [truck] crashes are due to falling asleep—and 15 to 20 percent of truckers have sleep apnea before they even get behind the wheel," Mahowald says. "The DOT has known this, and for reasons that aren't clear to me, they haven't acted on it. If the general public knew these statistics, [a lot of people] would be afraid to get on the highway. It's horrifying."

Trying to convince work-obsessed Americans of the importance of sleep can be an exhausting task, Mahowald says. Scraping by on too little sleep is often seen as "a badge of honor."

"You never brag about how much sleep you got; you brag about pulling an all-nighter. Society has deemed sleep a minor annoyance, but it's a biological imperative." He adds that the Internet, cable TV, and round-the-clock retailing have given us additional ways to avoid needed rest. "We're just seeing more opportunities to get up earlier and stay up later. We've become a 24-hour society—we're adding more to our schedules, but we don't give anything up. It comes out of our sleep."

Mahowald laments the fact that most American medical students receive less than two hours of instruction in sleep medicine. In the 1980s he successfully lobbied the University of Minnesota Medical School, where he has taught neurology since 1975, to incorporate the topic into its curriculum.

Not surprisingly, Mahowald heartily endorses efforts within the medical profession to decrease sleep deprivation in hospital training programs. Research has shown that the human body never completely adjusts to night-shift work. "Industrial and workplace errors, across the board, occur most often between 2 a.m. and 5 a.m.," Mahowald says. For those who must work nights, he says, the key is mitigating the disruption of the circadian rhythm, mainly by taking extra measures to facilitate sleep during the day. Mahowald wouldn't recommend using OTC drugs, however; he simply hasn't seen any proof that they're effective. "Although over-the-counter sleep aids make people feel drowsy, there is very little evidence that they improve the quality *or* quantity of sleep," he says.

"We're always going to have shift work; there will always be a need for people to work at night," he says. "Certainly I'm at fault in keeping people [who work in the MRSDC labs] awake at night here. You have to recognize that you can force yourself to stay awake through the night, but you can't perform at your optimum level."

Given that human adults need four to 10 hours of sleep to function optimally, how does one know if one is sleep-deprived? If you need an alarm clock to wake up in the morning, Mahowald says, you're not getting enough sleep—and *any* degree of sleep deprivation impairs performance and heightens irritability, he emphasizes. So does he use an alarm clock?

"You bet. Very few of us don't—very few of us require so little sleep that we operate without at least a small sleep debt," Mahowald says. The goal is to minimize the debt, "to come to peace" with how much sleep deprivation we can tolerate without compromising our safety, work, or personal relationships.

Mahowald finds the enormous opportunity for making positive change one of the most rewarding aspects of his work. He estimates MRSDC's treatment success at more than 90 percent, and he expects the statistic to keep improving. "Sleep disorders are very preventable, very disabling, very diagnosable, and very treatable," he says. "So many of the patients we see are otherwise young, healthy people, and when you treat the disorder, you help restore them to a vigorous, productive life—it's really gratifying." MM

*Susan Maas is a freelance writer in Minneapolis and a former communications associate at the Minnesota Medical Association.*

### *Dr. Mark Mahowald at a Glance*

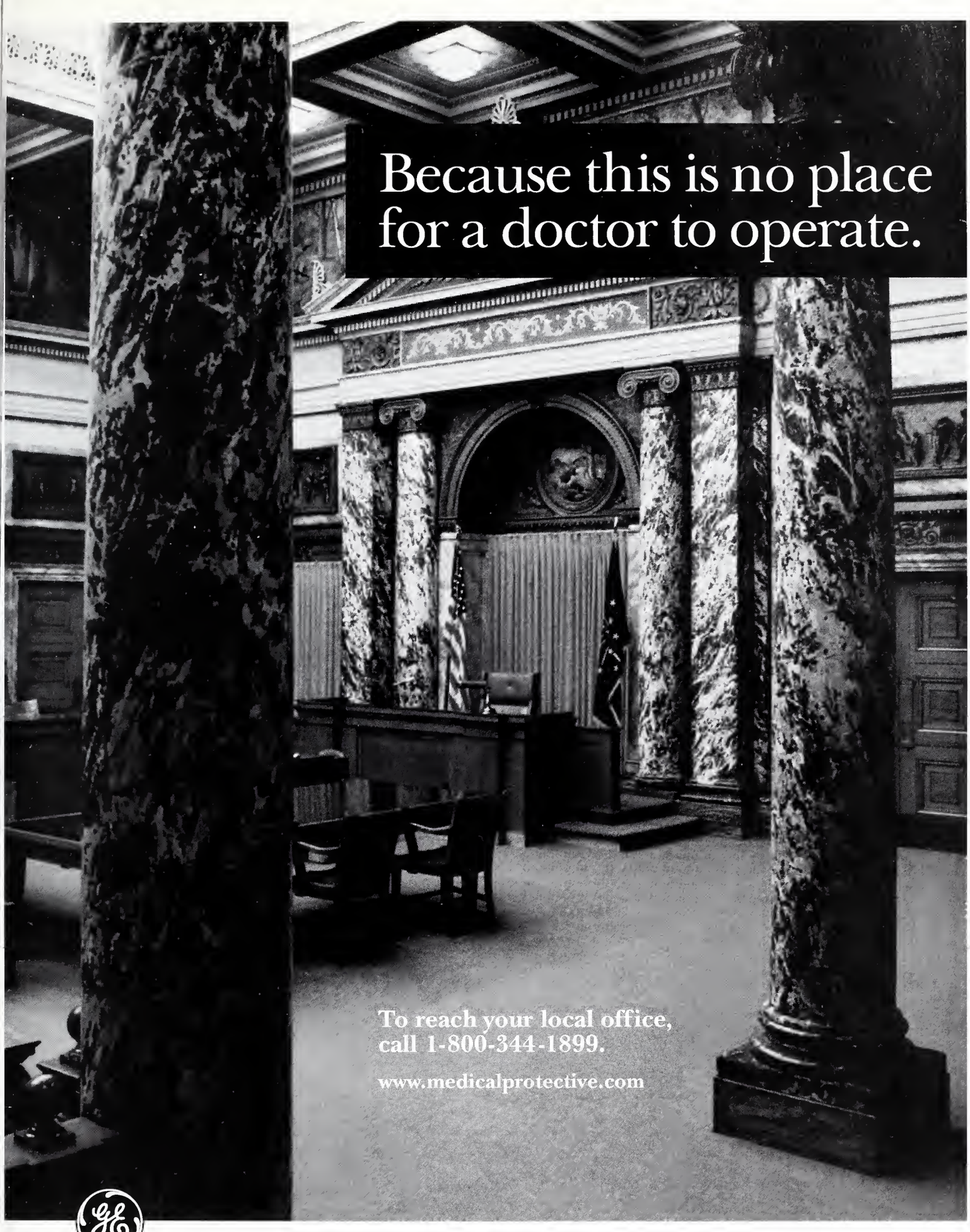
*Age:* *56*

*Education:* *M.D., 1968, University of Minnesota Medical School*

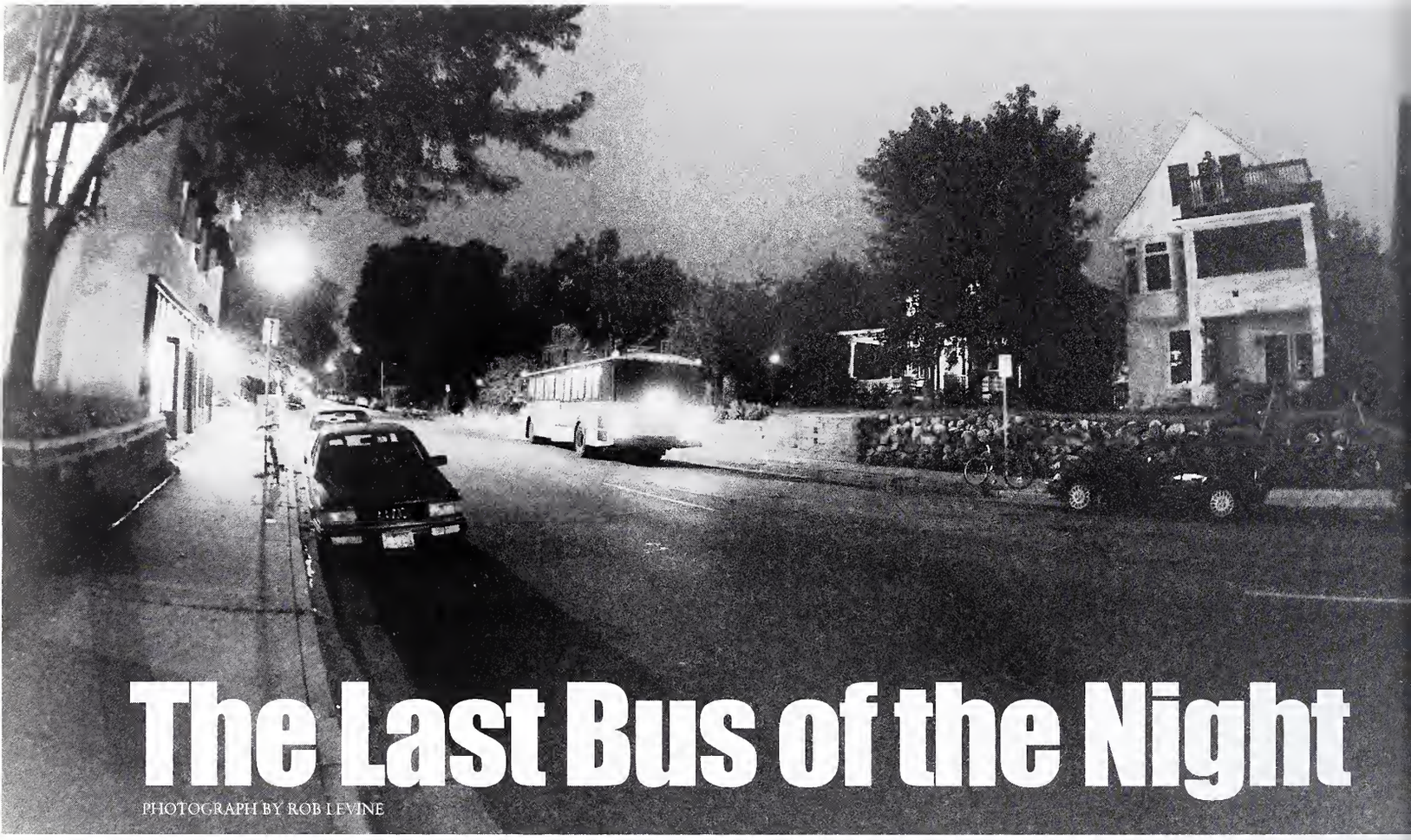
*Residency in neurology, University of Minnesota*

*Family:* *Wife, Maren; son, Soren; and daughter, Carrie.*

*These days Mark Mahowald and his wife spend their limited leisure time at their cabin in Wisconsin, where they have been teaching their 7-year-old grandson, Joey, to waterski.*




***The Medical Protective Company®***



# The Last Bus of the Night

PHOTOGRAPH BY ROB LEVINE

**By Amelia Mari Merz**

Slouched on the blue plastic seat on the last bus of the night,
I greedily flip through my flash cards.
Teres major, rhomboid minor, triangles, quadrangles, and plexuses—
the geometric signposts on the landscape of human flesh.
It is my first week of medical school.

"Franklin Avenue, Twenty-fourth Street, Dupont," calls the driver even though
I am his only passenger and he knows my stop is at the end of the line.
The window is jammed open, and a humid breeze, heavy with the day's air,
rustles the great vessels, the flexors, and the tensors.
It is the last week of summer.

"Lyndale Avenue again tonight, Miss?"
From the rearview mirror yellow street lights flicker across his tired, kind face.
"Yes, please," I answer, quickly returning to my cards.
"What are you studying there?" I feel a flash of impatience,
I have a test tomorrow.

"Human anatomy? What are you going to school for?"
I dread telling him—surely, it will consume several minutes of precious card time.
Marking my place, I set the cards on my lap and struggle
to be polite, to hide my fatigue, my obsession.
I try to be the perfect incarnation of a medical student.

"What will you specialize in?" he asks as we pass
the velvety dark of the lakeside cemetery.
Binding up the ganglions, the costals, and the crests,
I resign them to my backpack.
I have to think of something.

"Pediatric cardiology," I hear myself say
in a tone that sounds more like a question than an answer.
I feel an impostor. I hope I pass the test tomorrow.
At Colfax Avenue the mini-mart flickers into darkness.
The bus is slowing down.

"How can you bear to care for sick children? How could you, every day?"
In the rearview mirror his face has grown green from the reflection of
the traffic light we seem not to be moving through.
He is accusing me of something, but
I do not know what.

Mumbling a hollow explanation of the situation ahead,
the way I imagine things will be, I wonder what has happened to my stop.
The bus has stopped now, up almost on the craggy curb.
The driver turns around and looks me
straight in the eyes.

"So you think you are going to cheat death for the little ones, huh?
Do you think God will approve of your interference?"
Clutching my backpack, I say I think even God would understand
fighting to keep the soul of a child here
for a little while longer.



The driver turns away from me and looks out at the deserted intersection.
"Have you ever been to Children's? The docs are amazing there.
I don't know how they do it though,
facing those kids, those parents every day.
They tried so hard.
They were really in it with us that week."

Turning back to face me, the driver says she was their only child.
She had long, blonde hair and she was only 17.
She was not supposed to die of mononucleosis,
a teenage kissing disease.
It was not supposed to happen, but it did.

A rare case. Infectious disease docs were called in.
She passed quickly, only a week after arriving at Children's,
baffling the team of specialists.
A victim of improbability.
It was just last spring.

The driver's eyes, heavy with tears, look out into the darkness.
On the last day of summer.
"That is one hell of a hospital though," he says.
"You should spend some time there."
He pushes the lever and the bus door opens.

"I am so sorry," I hear myself saying while moving toward the door.
"Doc, that's one dollar. I hate to charge you, but there's a camera ..."
I fumble for a bill, "I'm sorry," I say again.
"We'll see you tomorrow, Miss."
I step out into the sleeping streets and watch his bus cross Lyndale Avenue.

*Amelia Mari Merz, who wrote this poem for a University of Minnesota Clinical Medicine I course in professionalism (see story, page 14), just started her second year of medical school. Her husband, Rob Levine, shot the photograph for* Minnesota Medicine.

# Continuing Medical Education

sponsored by Allina Health System

## September 2000

**1** **Advanced Cardiac Life Support (ACLS)**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Abbott Northwestern Hospital, Minneapolis

**9** **Retina Update 2000**
PRESENTED BY: Phillips Eye Institute
LOCATION: Hotel Sofitel, Minneapolis

**14** **Electron Beam Computed Tomography Conference**
PRESENTED BY: Minneapolis Heart Institute
LOCATION: Abbott Northwestern Hospital, Minneapolis

**15** **Obsessive-Compulsive Disorders (OCD) in Adolescents**
PRESENTED BY: Allina Behavioral Health
LOCATION: United Hospital, St. Paul

**18 & 19** **Advanced Trauma Life Support (ATLS)**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: United Hospital Conference Center, St. Paul

## October 2000

**6** **Prevention, Diagnosis and Treatment of Breast Disease**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Earle Brown Heritage Center, BrooklynCenter

**13** **Minnesota and the Aging Driver: Your Options as a Professional**
PRESENTED BY: Allina Hospitals & Clinics, AAA, GRECC/VA Hospital, State of MN Dept. of Public Safety, and Sister Kenny Rehabilitation Services
LOCATION: Earle Brown Heritage Center, Brooklyn Center

**26 & 27** **2000 Front Line Neurology Symposium**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: DoubleTree Hotel, by Mall of America, Bloomington

**28** **7th Annual Orthopedics & Sports Medicine Symposium**
PRESENTED BY: Mercy and Unity Hospitals
LOCATION: Earle Brown Heritage Center, BrooklynCenter

## November 2000

**3** **Patient Educator Conference**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Abbott Northwestern Hospital, Minneapolis

For more information contact:
**Allina Education and Research Administration at (612) 775-9626**

ALLINA. HEALTH SYSTEM

®Allina Health System

**Visit the Allina CME Calendar at http://www.allina.com**

# Ridgeview CLINICS

**Ridgeview Clinics,** a mid-size primary care group of clinics located in the western metro area, is offering opportunities for:

**Family Practitioners** *(OB optional)*
**Internal Medicine Specialists**

These clinics have providers specializing in family practice-OB, internal medicine, occupational medicine and podiatry.

Ridgeview Clinics are affiliated with an independent, financially sound, 109-bed regional medical center in Waconia, Minnesota, with more than 200 physicians in 34 specialties.

Located in the southwest metro just minutes from Minneapolis/St. Paul, the area offers four-season recreational opportunities, top-rated schools and dynamic, growing communities.

Ridgeview Clinics offer a production-based compensation package including a competitive salary and full benefits.

Please mail, fax or e-mail cover letter and C.V. to:

**Jon Rauen**
**Ridgeview Clinics**
**470 West 78th Street**
**Chanhassen, MN 55317**
**phone: 952/934-0570**
**fax: 952/906-7894**
**email: jon. rauen@ridgeviewmedical.org**

EOE/AA

# Learning the Art of Medicine

STORY BY JODI OHLSEN READ



First-year medical students at the University of Minnesota composed the art and writings accompanying this article. This painting, "Random Thoughts Provoked by Hedrick," is by Amy Marie Sandnas.

*"You can soon become so engrossed in study, then in professional cares ... in getting and spending ... you may so lay waste your powers that you find too late with hearts given away that there is no place in your habit-stricken souls for those gentler influences that make life worth living."*

*~Rudolf Virchow, M.D.*

Determined, Mandi Beman walked into the lab. Inside the room, the first-year University of Minnesota medical student stopped short, shocked by the sight of bodies laid out on tables—the cadavers. Straightening her shoulders, she focused on the job to be done and concentrated on making a first cut, thinking only of the task. She couldn't take the bag off the cadaver's head. Then she noticed the hands. An elderly woman's hands, with carefully painted fingernails. This was someone's daughter, maybe someone's wife or mother.

"You leave, and you think, 'What have I just done?' " Beman says. "You go home and you smell like formaldehyde and you can't get it out of your mind. A lot of us think we can be real clinical and just do it, but you can't." The next day in class, Beman discovered that her feelings weren't unique. She listened with relief as others expressed feelings of fear, grief, and uncertainty about working on the cadaver for the first time. This experience had been difficult for everyone.

First-year medical students have likely always struggled with such reactions to their chosen profession, but the opportunity to share them in class is new. Over the past three years, the U of M Medical School has revamped its Clinical Medicine I program, adding components on professionalism and physical examination. In the professionalism segment, Beman and her classmates used literature, reflection, and discussions with physician tutors to focus on the ideals and values that attracted them to medicine—to consider the very essence of being a good doctor.

Paul Sanders, M.D., CEO of the Minnesota Medical Association, was a tutor for the professionalism course last fall. "One thing that stood out for me was the students' strong hunger for anecdotes about what it is really like to be a physician. They are hungry for stories about life experience. I found that besides a strong intellectual capacity, there is also a real presence of appropriate self-awareness and self-questioning. There is a willingness and openness to talk about feelings, fears, and anxieties—to acknowledge their humanity in a way that medical training sometimes denies," he says. "As they move through training, all kinds of factors encourage doctors to give up their humanness and develop a protective shell. Students need

### *I Hope You Find Comfort Here*

*by Mandi Beman*

*I hope you find comfort here.*

*Reach out, for I am near.*
*You will trust in my hands, my mind,*
*my years.*

*With heart in mouth you will tell me*
*of your aches and pains,*
*As you anticipate the guidance*
*you may gain.*

*With my knowledge and experience I*
*can ease your fears,*
*But in the end, it is my heart*
*that will cushion your falling tears.*

*I hope you find comfort here.*

*Excerpt from*

## *Pledge to a Future Patient*

*by Todd Anderson*

*I pledge:*

*To see you as a unique individual who deserves care with the same spirit that I would provide for a member of my own family.*

*To appreciate the power of hope in fighting illness and strive to provide inspiration for your efforts.*

*To humbly recognize my own limits.*

*To educate you at every opportunity so that you can play a major role in directing your own care.*

*To recognize your own ideas about "healing" and empower you in your efforts.*

*To never lose sight of the fact that the compassion I show can help you to be both healthier and happier.*

*To use my opportunities to make a positive impact on the community we live in.*

*To look out for you when you are most vulnerable.*

*To do no harm.*

to understand that these feelings are OK. Courses like this affirm the importance of retaining those feelings."

The curriculum is intended to provide students with a solid framework for the future demands and responsibilities of their career, says Sharon Allen, M.D., Ph.D., director of Clinical Medicine I–III at the university. The hope is that they will carry the values into their practice and influence the entire profession. "It sets the stage for their development as a physician," Allen says. "It sets the foundation for the human aspect of medicine, which can be lost as we go through the rigors of medical education and practice."

Professionalism has not always been part of a formal curriculum, but rather was assumed to be learned through experience. Greg Plotnikoff, M.D., M.T.S., who coordinates the seminar with family physician Jon Hallberg, M.D., says the focus was entirely on biomedical science when he started medical school 15 years ago. "Students haphazardly learned the skills now taught in professionalism courses," says Plotnikoff, who is also director of the university's Center for Spirituality and Healing. What has been missing, say Plotnikoff and other leaders of the Medical School, is a focus on the humanistic values that make health care more than the technical application of medical science.



*Drawing of lay doctor Man Singh of the Ram Mandir leper colony in Dehradun, India, by Shulamith C. Bonham.*

"Our attention has been directed toward technology and the incredible capacity to intervene in human disease. That focus has also blinded us to issues of ultimate meaning," Plotnikoff says. "The focus and rewards of practice have shifted from care to economics. The language has shifted from a relationship to the marketplace. We don't talk about physician-patient relationships; now we talk about relative value units. Patients are customers and physicians are vendors."

While the need to teach professionalism may be clear, finding a way to teach it presents a major challenge. "Professionalism is a combination of knowledge, skills, beliefs, and values," explains Ilene Harris, director of educational development and research at the Medical School. "You typically learn beliefs, values, and attitudes through role modeling, discussion, practice, and reflection. ... Or you learn through simulated experiences through literature and by reflecting on your reactions in a group with novices and a 'master.' "

In the university's professionalism course, students participate in small-group tutorials led by a specially selected, experienced emeritus faculty member or community physician. To set the tone for the year, students read Anne Fadiman's "The Spirit Catches You and You Fall Down," the story of a Hmong child's experience with American doctors (Farrar Straus & Giroux, 1997). Students also read and discuss other literature (short stories, essays, and poems) chosen to evoke responses and conversation about patient experiences, images of physicians in society, potential ethical conflicts, and physician-patient relationships. Through personal journals and discussion, students examine their reactions and thoughts. These interactions expose students to ideas and situations they are likely to encounter in practice.

"There is a broader base of people who've chosen to become doctors," says first-year medical student Amelia Merz. "People all come in with their own prejudices. For some, it [the class] reinforces ideas they already had, and for some it opens their eyes. In the end, it serves the patient population better."

Just as important as the readings and discussions are the relationships students develop with their peers and tutors. A good tutor, says Plotnikoff, brings a passion for the subject, loves the practice of medicine, and can inspire students.

"My tutor, Judith Shank, was very helpful," says Beman. Shank invited the medical students into her home, giving them an opportunity to get to know one another and to learn about her life as a doctor. Beman says the students wanted to know if a physician can lead a normal life, so Shank talked about balancing a personal life with a career, handling the demanding hours, and related issues. "We asked, 'Was there ever a time you wanted to quit? Is it possible? Is it pleasant?' She made us feel better about those things."

At the end of the course, students are asked to submit

## *Boundaries*

*by Elizabeth Lorenz*

*My doctor's hands revealed glimpses of his life. Calluses, a paper cut, a wedding ring, nails neatly trimmed, the lifelines and love lines etched in his palms, curly black hair. I wondered what had touched those very hands—his wife's lips, his daughter's chin? The keys to his house on the lake, onions he sliced when cooking his favorite meal?*

*But as those hands approached my body, my doctor paused. He turned slowly and carefully pulled two latex examination gloves out of a box.*

*As he slipped his well-manicured fingers into those cool, white pieces of plastic, I realized my doctor was guarding his life—that very life with his wife and his daughter and his house on the lake with the onions frying in the pan. Those gloves guaranteed that his skin would never touch my skin. So that I would not leave the impression of my body on his fingertips. As soon as he was done examining me, my doctor could peel those clammy gloves off his untouched hands and dispose of them in the garbage.*

*And as I was left sitting on the examination table in the examination room, he could walk down the hall and put his real hands in his real pockets and touch his car keys and his piece of spearmint chewing gum and the wallet containing a picture of his family. And his encounter with my body would be left lying safely in the trash.*

a final reflective piece about one aspect of their readings and discussions (see accompanying selections). Topics have ranged from the cadaver as a first patient to the importance of compassion. With no particular rules, the opportunity for creativity can be daunting. Yet the results often reveal an impressive depth and sophistication. This year a panel of four former U of M patients judged the 165 submissions. In a summer ceremony, tutors and students were honored for their work. Ten students received top honors for their pieces, and 12 received honorable mention.

The emphasis on professionalism is reinforced in seminars on ethics and cultural diversity throughout the four years of medical school. "This program is not an add-on," says Plotnikoff. "This course is only one part of a whole movement within the Medical School. We hope to encourage, from day one of medical school, an emphasis on the values of humane care. We want students to be sensitive to issues such as suffering and the nature of healing." MM

## Honoring Tradition: The White Coat Ceremony

A physician's white coat signifies medical expertise, authority, and a dedication to patient welfare. And it represents a tremendous responsibility. To highlight first-year medical students' transition into patient contact training and emphasize professional responsibility, the Medical School each January holds a formal White Coat Ceremony where students are presented with their white coats.

"The White Coat Ceremony celebrates the induction into the profession, the honor, and the sense of responsibility," says Gregory Vercellotti, M.D., professor of medicine, senior associate dean for education. "We use the ceremony to help instill the values of the profession."

With family members and other loved ones, faculty, and colleagues as witnesses, the students recite the Hippocratic Oath, pledging their commitment to the profession.

"I was very moved by it. It put the emphasis where I had idealistically hoped there would be emphasis. That's what I wanted the profession to be like," says medical student Amelia Merz. "Right out of the chute, before we were allowed to see patients, they talked about the importance and responsibility—to the patients and the profession—of wearing that white coat. I'm seen a certain way just because of the coat, and it is a privilege."

### *Excerpt from Two Hands*

*by Geoff Service*

*With two hands I was born, one left and one right,*
*They reflect each other, digits,*
*knuckles and opposing thumbs,*

*So I stand here before you,*
*my hands open wide for you to see,*
*That they mirror me and you; and me and me.*

*With one hand I swear this oath,*
*With the other I promise to do my best,*
*With both hands I will fight to keep me true.*

*With one hand I will study the human body,*
*With the other I will study the human soul,*
*With both hands I will open the door to our*
*new existence.*

*With one hand I will run tests and give injections,*
*With the other I will hold your hand,*
*With both hands I will help you become well again.*

*With one hand I will deliver you,*
*With the other I will help you deliver your child,*
*With both hands I sincerely thank you*
*for the opportunity to play my part.*

*Both hands will have scars to remember,*
*Both hands will ache from past deeds,*
*And both hands will softly close my doctor's door.*


Why would you play 18 holes with just a putter?
A company that only offers you insurance is like playing 18 holes with just a putter. Midwest Medical Insurance Company gives you a full complement of "clubs"... services from expert malpractice insurance to complete employee benefits planning, strategic consulting, healthcare information systems consulting, even Internet services designed specifically for you! Master your game with MMIC as your most trusted business partner.
Call 1-800-328-5532 or visit us at www.midmedical.com
20 Years
MMIC
of Excellence
INSURANCE
EMPLOYEE BENEFITS
CONSULTING
Technology & Strategic
INTERNET SERVICES

EDITORIAL

# The Interplay of Poverty and Adverse Health Outcomes

Physicians must help break the link between poverty and poor health.

This issue of *Minnesota Medicine* includes two provocative articles highlighting the effects of poverty on health indicators for women and children. The first article, by Fogarty et al., "Project LID (Lower Infant Deaths): Lessons Learned from a Local Infant Mortality Review Project," examines the relationship between utilization of prenatal care services and maternal and birth outcomes. The second, by Lifson et al., "The Association of Poverty and Low Immunization Rates in ZIP Code Areas: A Retrospective Survey of Minnesota Kindergartners," demonstrates the effect of poverty on immunization rates, a sensitive marker for preventive care services.

As physicians, we must appreciate how poverty limits access to adequate care and harms health. Children living in poverty represent 40 percent of all poor Americans, with one out of five children living below the poverty threshold. The myriad problems and stressors of impoverishment can create insurmountable barriers for families. An integrated and coordinated effort across social service and health care professions will be required to effect lasting and positive change.

As highlighted in the article by Fogarty et al. (see page 43), poverty is associated with a higher incidence of unplanned and unwanted pregnancies, adolescent pregnancy, inadequate prenatal care, and a higher percentage of low-birth-weight infants and preventable infant deaths. Surprisingly, it was not a lack of health insurance coverage—only 1 percent had no coverage—but rather homelessness, violence, and alcohol and drug abuse that accounted for the associated risk factors. Although Minnesota is a national health care leader, the state ranks 45th and 50th nationally in the rate of early prenatal care for African-American and Hispanic women, respectively.[1]

The major outbreaks of measles in both the United States and Minnesota in the early 1990s raised our awareness of inadequately immunized children. As the article by Lifson et al. indicates (see page 51), in 1992 only 61 percent of 2-year-olds were fully immunized. The authors demonstrate a strong statistical link between living in communities of poverty and low immunization rates.

The literature on risk and resiliency supports the themes of these two articles. The work of Michael Rutter, M.D., clearly demonstrates that risk factors are more than additive and actually accentuate outcomes as they increase. Rutter showed the "potentiation" of interrelated risk factors, examining the impact of six family variables on outcomes, including marital discord, low socioeconomic status, large family size and overcrowding, criminal activity, emotional disorders, and altercations with local authorities. He found that the cumulative impact of stress was exponential rather than linear—with two risk factors related to a fourfold increase in adverse outcomes and four risk factors related to a twentyfold increase.[2] Is there any doubt that inadequate family income and the concomitant problems of inaccessible housing, inadequate nutrition, violence, and drug use lead to higher infant death rates and inadequately immunized children?

So what can be done to address these seemingly insurmountable policy problems? The recommendations so eloquently described in both articles suggest we should undertake a focused, interdisciplinary and coordinated approach.

Interagency planning and assessment: As professionals we frequently "talk the talk" of interagency collaborations but seldom practice real interagency planning. Families faced with fragmented social service and health

**"The myriad problems and stressors of impoverishment can create insurmountable barriers for families."**

systems interact with a multitude of professionals, including social workers, public health nurses, physicians, nutritionists, therapists, educators, and child care providers. As a community, county, and state we should regularly collaborate to plan coordinated interventions.

**Interdisciplinary training:** One reason interagency planning is necessary is that so little training is done across disciplines. Professionals in various fields use different vocabularies, which are often foreign to their allies dedicated to the same mission. We must develop a common language across disciplines. This could be initiated with onsite inservices, mentorship programs, and cross-disciplinary field placement opportunities.



© ABRAHAM MENASHE

*Children living in poverty represent 40 percent of all poor Americans.*

**Cultural competency and understanding:** Cultural appreciation and understanding will become even more relevant in the future. Early in the next century, half of the U.S. population will be persons of color. Only with increased cultural sensitivity will we be able to appreciate culture's effect on health-seeking behavior.

**Community involvement:** We must involve our patients in their health care and move away from the paternalistic approach to interventions that has often characterized our efforts. Since many of us in health and social services have little experience with our patients' lives, we must draw upon community-based resources such as Way to Grow in Minneapolis and the Children's Initiative in St. Paul, as referenced in the Fogarty article. Task forces, community needs assessments, councils, and work groups must include members from the communities they serve.

**Patient advocacy:** While advocacy is critical within our practices, multispecialty groups, and care systems, we must also advocate for patients at a policy level. This is the only way to reconnect the policymakers with the people responsible for interpretation and implementation. Policymakers must hear from professionals who deliver care if they are to appreciate both the intended and the unintended consequences of their actions and better grasp the magnitude of the needs facing families with children.

The old adage "an ounce of prevention is worth a pound of cure" emphasizes the value of health strategies that address underlying causes of adverse health outcomes. The assumption is that if we use a preventive strategy up front it will be more effective and less expensive in the long run. What is often lost in the dialogue, however, is our acknowledgment that limited resources blunt our efforts. Though an ounce of prevention is effective, it is time to demand more than an ounce for our infants and children. Let us demand a pound of prevention. We will need a broader vision of our children's needs to demonstrate that an intense, coordinated, and integrated response will offer all our children a better chance at a healthy future. MM

*Charles Oberg is chief of pediatrics at Hennepin County Medical Center.*

REFERENCES

1. The state of America's children yearbook—1999. Washington, DC: The Children's Defense Fund, 42.
2. Rutter M. Family stress and children's response. In: Albee GW, Joffe JM, and Dusenburry LA, eds. Prevention, powerlessness, and politics: readings on social change. Newbury Park, California: Sage Publishing, 1988:180-7.

**By Charles Oberg, M.D.**

EDITORIAL

# IMPAIRED DRIVERS

*Recent AMA guidelines describe the responsibilities of physicians who have patients that are not fit to drive.*

By Herbert Rakatansky, M.D.

For most people, driving a car is not just a practical matter but an emotional one as well. Teenagers gain independence in the ritual of acquiring a driver's license. Who among us has forgotten that exciting time? So later on, when the ability to drive is diminished by illness or aging, it's not surprising that the prospect of surrendering the keys to freedom can be devastating.

Consider the following (probably familiar) scenario: An elderly patient is growing forgetful, he is frail and has some difficulty getting around, and he has diminished eyesight. He drives an automobile that he claims is essential to his life. Although he has not had an accident, you are afraid that the combination of weakness, poor sight, and forgetfulness represents a danger to him and others. Your advice to cease driving is forcefully rejected. The family has given him similar advice, provoking strong emotions and even more vehement rejection. What is your responsibility as his doctor?

There are few simple solutions to the ethical dilemmas that arise from the tension between a physician's obligation to public health and responsibility to individual patients. The AMA's Council on Ethical and Judicial Affairs has recently issued an opinion on this subject as it relates to driving ability for patients with illnesses.

In some of these conflicts the law prescribes our obligations. For instance, in cases of child and elder abuse, physicians are usually required to breach confidentiality and report the information to the appropriate authorities. Similar considerations may apply to physicians who treat certain injuries, such as gunshot and knife wounds. Some states have laws that prohibit patients with active seizure disorders or certain other diseases from driving. Drivers of public vehicles such as buses are held to higher health standards, and doctors must certify the absence of certain medical conditions. If physicians believe that a specific person is in physical danger because of threats made by a patient, they should notify either the intended victim or the authorities. Finally, there have been widespread efforts to contain certain communicable diseases by requiring physicians to report patients' conditions to the proper health authorities.

## *When Driving Becomes a Hazard*

Physicians play a very important role in health maintenance and preventive medicine. More and more, physicians are discussing with their patients various detrimental lifestyle habits. Topics may include smoking cessation, use of seat belts and bicycle helmets, nutrition, and safe storage of firearms. With some patients, the discussion should include driving and should be pursued with the purpose of protecting the health—and life—of the patient as well as the public.

In broaching the topic of not driving, physicians must consider the psycho-social consequences to their patients of losing this privilege. Shopping, participation in social activities, attendance at religious ceremonies, and other activities essential for a satisfying, healthy life must be examined and addressed with the patient and family. Often, driving is a matter of pride and may be the last remnant of independence for elderly patients, who see many areas of their life slipping from their control. Empathy and compassion are essential to help the patient cope with the loss of autonomy.

Age is not the only condition that can impair driving ability, but it may be the most vexing to deal with, partly because the patient often does not perceive the impairments. Some physical diseases may produce impairments that are more apparent to the patient.

## *The AMA Guidelines*

The recently issued AMA guidelines are aimed at physicians who have an ongoing relationship with their patient, not isolated contact. Under certain circumstances, reporting to a governmental authority becomes ethically permissible and desirable. However, these guidelines do not mandate physicians to report. Some alternatives to consider before reporting include discussing plans with the patient and, when appropriate, family members, or referring a patient for further medical treatment or to a driving rehabilitation program. Several organizations, such as the National Highway Traffic Safety Administration or the Association for Driver Rehabilitation Specialists, provide information related to various health conditions and disabilities that may affect driving.

Before making a report, the physician must have clear evidence that the impairment is substantial and that

it represents a strong threat to the public and the patient's own safety. The patient, and when appropriate the family, must understand that reporting is an option. Physicians don't issue licenses and have no power to revoke them. If there is a strong threat to the patient and the public and all efforts to dissuade the patient from driving have failed, a report may be made to the Department of Motor Vehicles, which can independently evaluate the ability to drive.

Physicians should provide only the minimal amount of information relating to the patient's ability to drive. In some cases, depending on state law, the extent of a physician's obligation to report may not even include specific information related to the patient's diagnosis. That is, when appropriate, a physician may simply notify the proper authorities, leaving the evaluation and subsequent action to these entities.

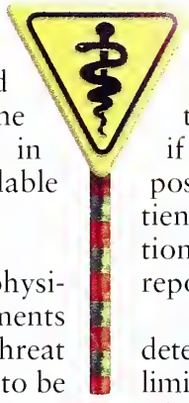
As physicians, we can strive to improve or at least maintain a quality of life for our patients who are unable to drive safely, advocating for their health and safety as we work to preserve the public health. MM

*Herbert Rakatansky is chair of the AMA's Council on Ethical and Judicial Affairs.*

## *The Opinion: When to Make a Report*

The following Opinion resulted from an extensive, deliberative process that involved many physicians and organizations. The report was written with the best interests of the community *and* the patient in mind, and the AMA's Council on Ethical and Judicial Affairs believes both are well served by a permissive, but not mandatory, policy.

The Opinion was issued in June 2000 based on a report adopted in December 1999 by the AMA House of Delegates and is included in the AMA's "Code of Medical Ethics" available at the AMA Web site (www.ama-assn.org).



The purpose of this report is to articulate physicians' responsibility to recognize impairments in patients' driving ability that pose a strong threat to public safety and that ultimately may need to be reported to the Department of Motor Vehicles. It does not address the reporting of medical information for the purpose of punishment or criminal prosecution.

1. Physicians should assess patients' physical or mental impairments that might adversely affect driving abilities. Each case must be evaluated individually, since not all impairments may give rise to an obligation on the part of the physician. Nor may all physicians be in a position to evaluate the extent or the effect of an impairment (e.g., physicians who treat patients on a short-term basis). In making evaluations, physicians should consider the following factors:

(a) The physician must be able to identify and document physical or mental impairments that clearly relate to the ability to drive;

(b) The driver must pose a clear risk to public safety.

2. Before reporting, there are a number of initial steps physicians should take. A tactful but candid discussion with the patient and family about the risks of driving is of primary importance. Depending on the patient's medical condition, the physician may suggest that the patient seek further treatment, such as substance abuse treatment or occupational therapy.

Physicians also may encourage the patient and the family to decide on a restricted driving schedule, such as shorter and fewer trips, driving during non-rush-hour traffic, daytime driving, and/or driving on slower roadways if these mechanisms would alleviate the danger posed. Efforts made by physicians to inform patients and their families, advise them of their options, and negotiate a workable plan may render reporting unnecessary.

3. Physicians should use their best judgment when determining when to report impairments that could limit a patient's ability to drive safely. In situations where clear evidence of substantial driving impairment implies a strong threat to patient and public safety, and where the physician's advice to discontinue driving privileges is ignored, it is desirable and ethical to notify the Department of Motor Vehicles.

4. The physician's role is to report medical conditions that would impair safe driving as dictated by his or her state's mandatory reporting laws and standards of medical practice. The determination of the inability to drive safely should be made by the state's Department of Motor Vehicles.

5. Physicians should disclose and explain to their patients this responsibility to report.

6. Physicians should protect patient confidentiality by ensuring that only the minimal amount of information is reported and that reasonable security measures are used in handling that information.

7. Physicians should work with their state medical societies to create statutes that uphold the best interests of patients and community, and that safeguard physicians from liability when reporting in good faith.

Illustration © Glenn Ryan/i2i Art

North Memorial Health Care®

*An Organization of Health Care Professionals*

*North Memorial is an independent, full-service facility located in the northwest Twin Cities with more than 700 physicians in more than 40 specialties. We are known as the trauma center in the region with other notable programs including the Hubert H. Humphrey Cancer Center, North Heart Center, North Rehabilitation Center, and the Women's and Children's Center. We also strongly promote physician practice opportunities within our associated clinics, including those that are independently owned, joint ventures and hospital owned. Which means you can choose from large or small and multi or single specialty practice options in metro, suburban or rural locations. North Memorial offers very competitive salaries and excellent fringe benefits. Sounds like the perfect job, doesn't it?*

***Positions now available for BE/BC physicians in:***

- **Family Practice**
- **OB/GYN**
- **Internal Medicine**
- **Gastroenterology**
- **Hematology/Oncology**
- **Emergency Medicine**
- **Pediatrics**
- **Maternal Fetal Medicine**
- **Urgent Care**

For consideration to be a part of our team please mail, fax, or e-mail cover letter and C.V. to:

Mark A. Peterson, Physician Recruiter
North Memorial Health Care
3300 Oakdale Avenue North
Robbinsdale, MN 55422
Phone: (800) 275-4790 or (612) 520-1336
Fax: (612) 520-5997
E-mail: mark.peterson@northmemorial.com

# Pediatricians

HealthPartners is dedicated to improving the health of our members and our community. It is our mission--and a quality we look for in the physicians who care for our patients. We offer competitive salaries, top benefits, challenging work--plus the opportunity to make a real difference in the health of the community you serve.

We have openings for BC/BE pediatricians at these Twin Cities' area clinics:

- **HealthPartners Brooklyn Center Clinic: Full-time**
- **HealthPartners Woodbury Clinic: Full-time**
- **HealthPartners West Clinic: Part-time (St. Louis Park)**
- **HealthPartners Coon Rapids Clinic: Part-time**

Fax your CV and cover letter to us at 952-883-5395 or mail to: HealthPartners, Physician Services, P.O. Box 1309, Minneapolis, MN 55440-1309. For more details, email: sandy.j.lachman@healthpartners.com or lori.m.fake@healthpartners.com. Call us at 952-883-5338, 952-883-5337 or 800-472-4695. EOE/AA Employer

HealthPartners®
*Medical Group & Clinics*

*HealthPartners' mission is to improve the health of our members and our community.*

# *Minnesota Medicine*

AN EXCELLENT ADVERTISING INVESTMENT

Target marketing pays real dividends with your space advertising in ***Minnesota Medicine,*** the official journal of the Minnesota Medical Association.

Delivered directly to offices, hospitals, and clinics, ***Minnesota Medicine*** reaches your key clients and prospects in their business setting.

***For complete advertising information contact:***

Michele Holzwarth
Minnesota Medicine
3433 Broadway Street NE, Suite 300
Minneapolis, Minnesota 55413
**612/623-2880**
**800/DIAL-MMA (342-5662)**

# Eyes Wide Shut

## *The Dangers of Sleepy Driving*

Mark W. Mahowald, M.D.

ABSTRACT

**Most Americans are chronically sleep-deprived. However, few people are aware of the extent to which sleep deprivation impoirs cognitive functioning. In the United States, at least 56,000 motor vehicle crashes (MVCs) each year, resulting in 1,550 deaths and thousands more nonfatal injuries, are attributed to sleepiness behind the wheel. As lawsuits from fall-asleep MVCs mount, individuals, the transportation industry, public policy-makers, and the legal profession are starting to take notice.**

Twenty percent to 31% of automobile crashes[1] and truck crashes that are fatal to the driver have been attributed to the driver's falling asleep at the wheel.[2] For perspective, 20–25 hours of wakefulness produces performance decrements equivalent to those observed at a blood alcohol concentration of 0.10%, a level deemed unsafe and unacceptable when working or driving.[3,4]

### *Consequences of Sleep Deprivation*

Although the function(s) of sleep remain unknown, evidence clearly shows that sleep deprivation has severe physiologic consequences. In rats, total sleep deprivation (both NREM and REM) is fatal within about three weeks (similar to the survival time associated with total food deprivation), and isolated REM sleep deprivation is fatal in about six weeks. Before death, energy expenditure increases markedly.[5] The mechanism of death remains completely unknown. Interestingly, if rescued "at the brink," many survive and apparently return to normal.[6]

Humans cannot be ethically deprived of sleep long enough to result in any known medical consequence, as sleep eventually supervenes regardless of the technique of sleep deprivation. Therefore, to the extent that sleep deprivation is possible in humans, the only known consequence is severe sleepiness, which represents a wake-state instability resulting in irritability, negative mood, and impaired cognition and performance—particularly in tasks resulting in sustained attention.[7] Although the consequences of sleep deprivation may be subtle, they interfere with some of the most important cognitive processes, including those pertaining to creativity, abstract thinking, and the control of attention and emotion.[8-10]

Workplace consequences include communication problems, lack of innovation, distraction, unwillingness to try new strategies, unreliable memory, and mood changes, including loss of empathy and the inability to deal with the unexpected.[11] Subtle but important decrements include interference with novel responses and the ability to suppress routine answers.[8] These adverse effects of sleepiness can result in serious consequences in the family, workplace, and classroom, and behind the wheel.[12-14] Furthermore, there is a potentially dangerous discrepancy between objective performance decrements and subjective perception of sleepiness.[15]

Many in our society grow up being taught that sleep deprivation is to be worn as a "badge of honor," that sleepiness is a minor annoyance that can be overcome by motivation, commitment, dedication, or sheer will. This is simply not true. Sleep is a biological imperative. The consequences of sleep deprivation are cumulative, with escalating performance and mood ramifications.[12] One does not "get used to" sleepiness: Accumulated sleep debt is dissipated *only* by catch-up sleep. To make matters worse, the relentless move toward a 24-hour society encourages chronic sleep deprivation.

## *Factors Controlling Sleepiness*

The two most important factors determining the degree of sleepiness at any time are homeostatic and chronobiologic (i.e., circadian). The homeostatic factor is related to the duration of prior wakefulness: the longer the duration of wakefulness, the greater the pressure to sleep. The second, circadian, is determined by the biological clock, the function of which is to promote wakefulness. The human biological clock has two "sleepy" times. The primary period occurs between midnight and 6 a.m.; the secondary in early to mid-afternoon. The peaks of motor vehicle crashes (MVCs) and all other industrial/workplace errors follow this bimodal pattern. Other factors that determine degree of sleepiness include age, underlying undiagnosed sleep disorders, and the effects of alcohol and some medications.

Many believe that sleepiness-related decrements in performance are due to frank "micro-sleep" episodes. Impairment of vigilance and reaction time precedes the appearance of true physiologic sleep; a sleepy individual who appears to be "awake" may actually be significantly impaired.[16] Sleep deprivation results in errors even in the absence of electrophysiologically defined sleepiness; after one night's sleep deprivation, the brain is functioning at a lower level at *all* times.[17] Amplitude reduction in visual event–related potentials as a result of sleep deprivation exemplifies fundamental changes in neurophysiologic mechanisms, indicating variability and reduction of alertness mechanisms and changes in thalamocortical gating affecting attention, discrimination, and decision making.[18] The lack of awareness of the extent to which sleep deprivation impairs cognitive functioning has been well-documented.[19] Consistent with the concept that the brain is the only organ benefiting from or requiring sleep is the fact that sleep deprivation results in CNS impairments, but not physical ailments.[20] (As an aside, the previously held notion that rapid-eye movement [REM] sleep deprivation in humans results in psychiatric or psychological problems is not true.[21])

## *High Price for Sleepy Driving*

Fortunately, the dire effects of sleepiness on driving are of growing concern to individuals, the transportation industry, public policymakers, and the legal profession. Studies clearly show that fall-asleep car and truck crashes exact a far greater toll in mortality, morbidity, and property damage than previously thought. For instance, in the United States, at least 56,000 motor vehicle crashes annually, resulting in 40,000 nonfatal injuries and 1,550 deaths, are attributed to sleepiness behind the wheel.[22] The cost of all sleep-related "accidents" (motor vehicle and otherwise) in 1988 was estimated to be between $43 billion and $56 billion.[23]

Fall-asleep MVCs are undoubtedly grossly underreported, primarily because sleepiness at the time of a crash cannot be measured or verified after the fact. Often, drivers who have fallen asleep are unaware that sleepiness played a role in the crash. In some states, "drowsiness/fatigue" is not a check-off box in the police accident report.[24]

In one large population survey, people reporting excessive daytime sleepiness (EDS) had twice the risk of fall-asleep MVCs as those who did not report EDS.[25] In a United Kingdom study, 29% of drivers had felt close to falling asleep at the wheel within the preceding year, and 9%–10% of all MVCs were associated with tiredness.[26] The AMA has recently acknowledged the importance of sleepiness and driving, and is urging educational and research programs.[27]

## *Antidotes to Sleepiness*

Common "tricks" to stay awake while driving, such as opening the windows or turning up the air conditioner, or turning up the radio are ineffective in increasing alertness.[28] The only truly effective countermeasures are ingesting caffeine or taking a nap.[29] To make matters worse, many drivers who have experienced a fall-asleep MVC did not perceive that they were sleepy immediately before the crash.[30] In addition, fighting sleep may not be perceived as portending falling asleep.[31,32] In one research study, only 15% of subjects claimed to have fallen asleep following one full minute of physiologically recorded sleep.[33]

## *Fall-Asleep MVCs: Characteristics and Risk Factors*

Fall-asleep MVCs have typical characteristics[22,34] and are commonly associated with duration of drive, youth, and sleep restriction.[35] They

- Most often occur at two times of the day: midnight to 6 a.m. and mid-afternoon (paralleling the circadian nadirs of alertness),
- Affect predominately young people (peak age of occurrence, 20 years). Drivers younger than 30 account for almost two-thirds of drowsy MVCs, but represent only about one-fourth of licensed drivers,
- Occur primarily off the road (78%),
- Take place at higher speeds (62% in excess of 50 mph),
- Are likely to be serious crashes, with a fatality rate similar to that of alcohol-related MVCs (1.4% fall-asleep vs. 2.1% alcohol).

In addition, the driver in a fall-asleep MVC does not attempt to avoid a crash. Fall-asleep MVCs usually involve a single vehicle that leaves the road with no skid marks suggesting swerving or braking. The driver also tends to be alone in the vehicle (82% in one series). The National Highway Traffic Safety Administration reports that 20% of passenger and 14% of large truck crashes are single-vehicle events.[36]

## *High-Risk Situations for Fall-Asleep MVCs*

Certain groups are at particularly high risk for driving sleepy: volitionally sleep-deprived individuals, adolescents, shift workers, people with underlying undiagnosed and untreated sleep disorders, and commercial truck drivers.

### Volitional sleep deprivation

The overwhelming majority of Americans are chronically sleep-deprived, as exemplified by needing alarm clocks, "sleeping in" on weekends or days off, and falling asleep during sedentary, nonstimulating activities (such as boring lectures or meetings). Today, we obtain 20% less sleep than our forebears a century ago, yet there is no evidence that they required more sleep than we do, or that we require less. The above-mentioned circadian effect on sleepiness/alertness should not be underestimated in performance decrements. Circadian factors in MVCs are prominent and may be at least as important as the duration of the drive.[37]

### Adolescents

As a group, adolescents are notorious for being severely sleep deprived. Older adolescents in particular are challenged to get enough sleep. Older adolescents require more sleep to maintain the same degree of alertness as younger adolescents. They also have a delay in their biological clock that prevents them from falling asleep as early as they did when younger and that requires them to sleep later in the morning to accumulate sufficient sleep to maintain adequate alertness during the day. Other obstacles to adequate sleep for older adolescents include schools' early starting times; extracurricular and employment opportunities (up to 60% of American high school students work outside school); and parents' reluctance to let their children sleep in on weekends (reflecting the erroneous societal attitude that sleeping in is a manifestation of laziness, depression, slothfulness, work-avoiding behavior, or some other defect of character). While depression may result in complaints of fatigue and lack of energy, it does not cause true excessive daytime sleepiness.

Clearly, younger drivers are at increased risk for fall-asleep MVCs. The National Highway Traffic Safety Administration attributes about 60% of sleep-related MVCs to drivers younger than 30 years, particularly men.[24] MVCs are the leading cause of death in youth from 16–20 years, resulting in more than 5,000 deaths annually. This age group constitutes only 7% of the U.S. population, but accounts for 14% of all MVC-related deaths. Per miles driven, 16-year-old drivers are more than 20 times as likely to have an MVC as the general population, and 17-year-olds are more than 6 times as likely. In addition, for every adolescent killed in an MVC, about 100 nonfatal injuries occur.[38]

### Shift workers

Many shift workers also are severely sleep-deprived. For example, night-shift workers obtain eight hours less sleep per week than those who work days, the equivalent of more than one entire night's sleep per week. The biological clocks of shift workers virtually never adjust to the night shift; and to make matters worse, tolerance to shiftwork actually diminishes with increasing age.

### Undiagnosed and untreated sleep disorders

Individuals with obstructive sleep apnea (OSA), a disorder that affects at least 4% of adult men and 2% of adult women to a clinically significant degree, have a much higher risk of a motor vehicle crash. Likewise, individuals with untreated narcolepsy have many more MVCs than non-narcoleptics. The risk of MVCs increases for persons with insomnia, which affects 20% to 30% of the adult population.

Thirty-two percent to 54% of patients with OSA have reported falling asleep while driving, compared with 7% of controls without OSA. Patients with OSA have a sevenfold higher rate of reported MVCs than those without OSA.[39] A history of nightly snoring increases MVC risk by 30%.[26]

### Commercial truckers

Nationwide, trucking crashes cause more than 5,000 fatalities and 30,000 injuries annually.[40] Sleep deprivation in truckers has been well-documented: In one study, drivers slept an average of 4.78 hours during principal sleep periods.[41,42] In Minnesota, inattention/distraction was the leading cause of truck crashes (21.6%) in 1995.[43] A survey of tractor-trailers in four states indicated that 10% to 23% of drivers had fallen asleep while driving in the previous month.[44] Fatigue-related crashes are more common for drivers with irregular schedules (67%) than for those with regular schedules (38%); the most important crash predictor was the duration of the driver's most recent sleep period.[45]

The prevalence of sleep-disordered breathing in truckers is extraordinarily high (46% in one study),[44] and commercial truckers with OSA have a twofold increase in rate of reported crashes compared with those without OSA.[46] Despite these facts, the biennial commercial driver history and physical examination required by the Department of Transportation (DOT) contains no questions designed to identify underlying sleep disorders, which could be diagnosed and treated, potentially preventing many fall-asleep truck crashes.

In the United States, the DOT considers it highly likely that every truck will be involved in at least one sleep-related crash during the life of the vehicle.[24] Similar frightening sleep-related problems have been identified in other transportation industries (airline, railroad, maritime), but are beyond the scope of this review.

## *Sleepiness, Medications, and Alcohol Interaction*

One night of sleep deprivation impairs driving ability as much as a blood alcohol level that meets the requirement for legal intoxication.[4] The impairment caused by sleepiness and alcohol is at least additive, and the performance-impairing and sleepiness-inducing effects of alcohol outlast the detectability of alcohol in the blood.[47-49] Therefore, the ingestion of moderate amounts of alcohol while sleep-deprived impairs performance as much as the excessive consumption of alcohol in the fully rested state, an effect that may explain the incidence of MVCs associated with low blood ethanol concentrations, as well as the increase in alcohol-related fatal MVCs during the first week after the change to and from daylight-saving time.[50] Commonly

prescribed sedatives such as benzodiazepines and zopiclone, and antihistamines also may play a role in MVCs, likely for the same reason.[51-53]

## *Excessive Sleepiness and Driving Privileges*

Superficially, it may seem prudent to legislate driving privileges in people with primary sleep disorders, and to that end, some states and countries have enacted specific guidelines and regulations stating that some of these individuals are unfit to drive. However, these regulations vary widely, and unfortunately are not based on scientific data.[54]

For perspective, it may be relatively easy to single out a specific group of patients with identified sleep disorders, and to restrict their driving privileges in the name of public safety. Yet by far the most numerous among sleepy drivers on the highways are those who are simply (and often severely) sleep-deprived for social or economic reasons—all of whom would be excluded from the reporting process and legal consequences. Sanctions for patients with narcolepsy or OSA would likely not only *not* have the desired effect, but would deter these patients from seeking medical attention for their symptoms.

## *Duty Hours of Medical Personnel*

The medical profession continues to wear sleep deprivation as a badge of honor, as a testament to hard work, dedication, and commitment. We tend to feel that we can overcome sleepiness more effectively than others, but no amount of motivation or dedication can overcome the consequences of sleep deprivation. Sleep deprivation in house officers has been well-documented.[55] Despite this, the objective data on the consequences of sleep derivation in house officers have been varied.[55,59-69] As mentioned above, sleep deprivation clearly impairs mood, cognition, and performance.[56] One celebrated case of malpractice attributed to sleep deprivation in a house staff officer has led to widespread reform in the duty hours of physicians in training.[57,58]

There is growing objective evidence that sleep deprivation clearly compromises performance and safety—even for the medical profession. A recent surgery simulation study clearly indicates that patients should prefer to be attended by well-rested physicians.[70,71] A recent observational study at a medical professional organization's national meeting found evidence of sleepiness in 35% of attendees in the mid-afternoon session.[72] Falling asleep driving home post-call has been well-documented.[73] A JAMA survey in 1991 found that 41% of residents polled listed fatigue as a major cause of errors, and in almost one-third of cases, these errors resulted in the death of the patient.[74] Studies have shown that sleep deprivation in house officers interferes with divergent, or creative, thinking—a source of pride for most physicians.[59]

### Risk Factors for Fall-Asleep MVCs*

- Sleep loss
- Driving patterns (circadian timing of drive, duration of drive)
- Young age
- Use of alcohol or sedating medications
- Untreated or unrecognized sleep disorders (especially obstructive sleep apnea or narcolepsy).

**See reference 22.*

## *Changing Attitudes toward Sleepiness and Driving*

There is incontrovertible evidence that sleepiness while driving exacts a severe toll at both personal and societal levels. Regrettably, changes in personal, corporate, and industry attitudes and public policies regarding driving sleepy will likely derive not from common sense and irrefutable scientific facts, but, rather, from interest on the part of the legal profession. Growing numbers of multimillion-dollar lawsuits are being generated by fall-asleep MVCs—against individuals, employers, and governmental agencies. As the expense of driving sleepy outweighs the (mis)perceived benefit, societal and policymaking attitudes will begin to change. MM

*Mark Mahowald is director of the Minnesota Regional Sleep Disorders Center, Hennepin County Medical Center, and professor, Department of Neurology, University of Minnesota Medical School.*

REFERENCES

1. Horne JA, Reyner LA. Sleep related vehicle accidents. Br Med J 1995;310: 565-7.
2. National Transportation Safety Board. Fatigue, alcohol, other drugs, and medical factors in fatal-to-the-trucker heavy truck crashes. Washington, DC: Safety study, NTSB/SS 95/01; 1990/1991.
3. Lamond N, Dawson D. Quantifying the performance impairment associated with fatigue. J Sleep Res 1999;8:255-62.
4. Dawson D, Reid K. Fatigue, alcohol and performance impairment. Nature 1997; 388:235.
5. Rechtschaffen A. Current perspectives on the function of sleep. Perspect Biol Med 1998;41:359-90.
6. Everson CA, Gilliland MA, Kushida CA, et al. Sleep deprivation in the rat: IX. Recovery. Sleep 1989;12:60-7.
7. Pilcher JJ, Huffcutt AI. Effects of sleep deprivation on performance: a meta-analysis. Sleep 1996;19:318-26.
8. Harrison Y, Horne JA. Sleep loss impairs short and novel language tasks having a prefrontal focus. J Sleep Res 1998;7: 95-100.
9. Randazzo AC, Muehlbach MJ, Schweitzer PK, Walsh JK. Cognitive function following acute sleep restriction in children ages 10-14. Sleep 1998;21:861-8.
10. Dahl RE. The impact of inadequate sleep on children's daytime cognitive function. Semin Ped Neurol 1996;3:44-50.
11. Horne JA. Frontal lobe function and sleep loss. Sleep Res Online 1999; 2(suppl 1):677.
12. Dinges DF, Pack F, Williams K, et al. Cumulative sleepiness, mood disturbance, and psychomotor vigilance performance decrements during a week of sleep restricted to 4-5 hours per night. Sleep 1997;20: 267-77.
13. Monk TH, ed. Sleep, sleepiness and performance. Chichester: John Wiley and Sons; 1991.
14. Broughton RJ, Ogilvie RD, eds. Sleep, arousal, and performance. Boston: Birkhauser; 1992.
15. VanDongen HPA, Maislin G, Dinges DF. Chronic partial sleep deprivation: neurobehavioral response and sleep architecture. Sleep Res Online 1999;2

(suppl 1):735.
16. Dinges DF. An overview of sleepiness and accidents. J Sleep Res 1995;4 (suppl 2):4-14.
17. Gillberg M, Akerstedt T. Sleep loss and performance: no "safe" duration of a monotonous task. Physiol Behav 1998; 64:599-604.
18. Corsi-Cabrera M, Arce C, Del Rio-Portilla IY, Perez-Garci E, Gevara MA. Amplitude reduction in visual event–related potentials as a function of sleep deprivation. Sleep 1999;22:181-9.
19. Pilcher JJ, Walters AS. How sleep deprivation affects psychological variables related to college students' cognitive performance. J Am Coll Health 1997; 46:121-6.
20. Reed C, Szuba MP, Powell JW, Carlin MM, Dinges DF. Neurobehavioral and somatic complaints during chronic partial sleep deprivation. Sleep 2000;23 (suppl 2):A242-3.
21. Vogel GW. A review of REM sleep deprivation. Arch Gen Psychiatry 1975; 32:749-61.
22. NCSCR/NHTSA Expert Panel on Driver Fatigue and Sleepiness. Drowsy driving and automobile crashes. http://www.nhtsa.dot.gov/people/perform/human/drowsy.html. Washington, DC; 1999.
23. Leger D. The cost of sleep-related accidents: A report for the National Commission on Sleep Disorders Research. Sleep 1994;17:84-93.
24. Knipling RR, Wang J-S. Crashes and fatalities related to driver drowsiness/fatigue. Washington, DC: Office of Crash Avoidance Research, U.S. Department of Transportation, Research note; 1994.
25. Ohayon MM, Caulet M, Philip P, Guilleminault C, Prienst RG. How sleep and mental disorders are related to complaints of daytime sleepiness. Arch Intern Med 1997;157:2645-52.
26. Maycock G. Sleepiness and driving: the experience of UK car drivers. J Sleep Res 1996;5:229-37.
27. Lyznicki JM, Doege TC, Davis RM, Williams MA. Sleepiness, driving and motor vehicle crashes. JAMA 1998;279:1908-13.
28. Reyner LA, Horne JA. Evaluation of "in-car" countermeasures to sleepiness: cold air and radio. Sleep 1998;21:46-50.
29. Reyner LA, Horne JA. Suppression of sleepiness in drivers: combination of caffeine with a short nap. Psychophysiology 1998;34:721-5.
30. Stutts JC, Vaughn BV. Why do people have drowsy driving crashes? www.aaafts.org. 1999.
31. Reyner LA, Horne JA. Falling asleep whilst driving: are drivers aware of prior sleepiness? Int J Legal Med 1998;111: 120-3.
32. Sagberg F. Road accidents caused by drivers falling asleep. Accid Anal and Prev 1999;31:639-49.
33. Rosenthal L, Nykamp K, Day R, et al. The detection of brief daytime sleep episodes. Sleep 1999;22:211-14.
34. Pack AI, Pack AM, Rodgman E, Cucchiara A, F. DD, Schwab CW. Characteristics of crashes attributed to the driver having fallen asleep. Accid Anal and Prev 1995;27:769-75.
35. Philip P, Tailliard J, Guilleminault C, Quera Salva MA, Bioulac B, Ohayan M. Long distance driving and self-induced sleep deprivation among automobile drivers. Sleep 1999;22:475-80.
36. Lamberg L. Wake-up call aimed at drowsy drivers: message is "drive alert, arrive alive." JAMA 1996;276:1209-10.
37. Horne JA, Reyner LA. Driver sleepiness. J Sleep Res 1995;4(suppl 2):23-9.
38. Committee on Injury and Poison Prevention and Committee on Adolescence, American Academy of Pediatrics. The teenage driver. Pediatrics 1996;98:987-90.
39. Findley LJ, Surrat PM. Automobile crashes and sleep. Virginia Med Q 1996;123:258-9.
40. Stoohs RA, Bingham L, Itoi A, Guilleminault C, Dement WC. Sleep and sleep-disordered breathing in commercial long-haul truck drivers. Chest 1995; 107:1275-82.
41. Mitler MM, Miller JC, Lipsitz JJ, Walsh JK, Wylie CD. Polysomnographic assessment of sleep during a week of long-haul truck driving. Sleep Res 1997;26:679.
42. Mitler MM, Miller JC, Lipsitz JJ, Walsh JK, Wylie CD. The sleep of long-haul truck drivers. N Engl J Med 1997;337:755-61.
43. Asp DS. Conducting truck drivers' physical exams: the high prevalence of sleep apnea. Minn Med 1997;80(1):29-30.
44. Braver ER, Preusser CW, Baum HM, Beilock R, Ulmer R. Long hours and fatigue: a survey of tractor-trailer drivers. J Public Health Policy 1992;13:341-66.
45. National Transportation Safety Board. Factors that affect fatigue in heavy truck accidents. Vol. 1. Washington, DC: Safety study NTSB/SS-95/01;1995.
46. Stoohs RA, Guilleminault C, Itoi A, Dement WC. Traffic accidents in commercial long-haul truck drivers: the influence of sleep-disordered breathing and obesity. Sleep 1994;17:619-23.
47. Roehrs T, Beare D, Zorick F, Roth T. Sleepiness and ethanol effects on simulated driving. Alcohol Clin Exp Res 1994;18: 154-8.
48. Zwyghuizen-Doorenbos A, Roehrs T, Lamphere J, Zorick F, Roth T. Increased daytime sleepiness enhances ethanol's sedative effects. Neuropsychopharmacology 1988;1:279-86.
49. Roehrs T, Zwyghuizen-Doorenbos A, Timms V, Zorick F, Roth T. Sleep extension, enhanced alertness and the sedating effects of alcohol. Pharmacol Biochem Behav 1989;34:321-4.
50. Hicks GJ, Davis WD, Hicks RA. Fatal alcohol-related traffic crashes increase subsequent to changes to and from daylight savings time. Percept Mot Skills 1998; 86:879-82.
51. Weiler JM, Bloomfield JR, Woodworth GG, Grant AR, Layton TA, Brown TL, et al. Effects of fexofenadine, diphenhyramine, and alcohol on driving performance. Ann Intern Med 2000;132:354-63.
52. Barbone F, McMahon AD, G. DP, et al. Association of road-traffic accidents and benzodiazepine use. Lancet 1998;352:1331-6.
53. Hemmelgarn B, Sulssa S, Huang A, Boivin J-F, Pinard G. Benzodiazepine use and the risk of motor vehicle crash in the elderly. JAMA 1997;278:27-31.
54. Pakola SJ, Dinges DF, Pack AI. Driving and sleepiness. Review of regulations and guidelines for commercial and non-commercial drivers with sleep apnea and narcolepsy. Sleep 1995;18:787-96.
55. Tov N, Rubin A-H, Lavie P. Effects of workload on residents' sleep duration: objective documentation. Isr J Med Sci 1995;31:417-23.
56. Pilcher JJ, Huffcutt AI. Effects of sleep deprivation on performance: a meta-analysis. Sleep 1996;19:318-26.
57. McCall TB. The Libby Zion case. One step forward or two steps backward? N Engl J Med 1988;318:771-8.
58. Glickman RM. Compounding the error. N Engl J Med 1988;318:778-82.
59. Nelson CS, Dell'Angela K, Jellish WS, Brown IE, Skaredoff M. Residents' performance before and after night call as evaluated by an indicator of creative thought. JAOA 1995;95:600-3.
60. Storer JS, Floyd HH, Gill WL, Giusti CW, Ginsberg H. Effects of sleep deprivation on cognitive ability and skills of pediatrics residents. Acad Med 1989;64:29-32.
61. Deaconson TF, O'Hair DP, Levy MF, Lee MB, Schueneman AL, Condon RE. Sleep deprivation and resident performance. JAMA 1988;260:1721-7.
62. Leung L, Becker CE. Sleep deprivation and house staff performance. Update 1984-1991. J Occup Med 1992;34:1153-9.
63. Browne BJ, Van Susteren T, Onsager DR, Simpson D, Salaymeh B, Condon RE. Influence of sleep deprivation on learning among surgical house staff and medical students. Surgery 1994;115:604-10.
64. Jacques CHM, Lynch JC, Samkoff JS. The effects of sleep loss on cognitive performance of resident physicians. J Fam Pract 1990;30:223-9.
65. Robbins J, Gottlieb F. Sleep deprivation and cognitive testing in internal medicine house staff. West J Med 1990;152:82-6.
66. Bartle EJ, Sun JH, Thompson L, Light AI, McCool C, Heaton S. The effects of acute sleep deprivation during residency

training. Surgery 1988;104:311-16.
67. Smith-Coggins R, Rosekind MR, Hurd S, Buccino KR. Relationship of day versus night sleep to physician performance and mood. Ann Emerg Med 1994;24:928-34.
68. Lingenfelser T, Kaschels R, Zaiser-Kaschel H, Jakober B, Kuper J. Young hospital doctors after night duty: their task-specific cognitive status and emotional condition. Med Ed 1994;28:566-72.
69. Haynes DF, Schwedler M, Dyslin DC, Rice JC, Kerstein MD. Are postoperative complications related to resident sleep deprivation? South Med J 1995;88:283-9.
70. Taffinder NJ, McManus IC, Gul Y, Russell RCG, Darzi A. Effect of sleep deprivation on surgeons' dexterity on laparoscopy simulator. Lancet 1998; 352:1191.
71. Aya AGM, Mangin R, Robert C, Ferrer J-M, Eledjam J-J. Increased risk of unintentional dural puncture in night-time obstetric epidural anesthesia. Can J Anaesth 1999;46:665-9.
72. Uhles ML, Stein R, Stuckey M, Duntley SP. Behavioral observations of sleepiness at a national sleep meeting. Sleep 2000;23 (suppl 2):A241.
73. Marcus CL, Laughlin GM. Effect of sleep deprivation and driving safety in housestaff. Sleep 1996;19:763-6.
74. Worth R. Exhaustion that kills. The Washington Monthly 1999;January/ February:15-20.

*First Call Physicians, Inc.*
*A Locum Tenens Service*
*500 Eighth Ave. S.*
*Buffalo, MN 55313*

**Clinics/Hospital** | **Physicians**

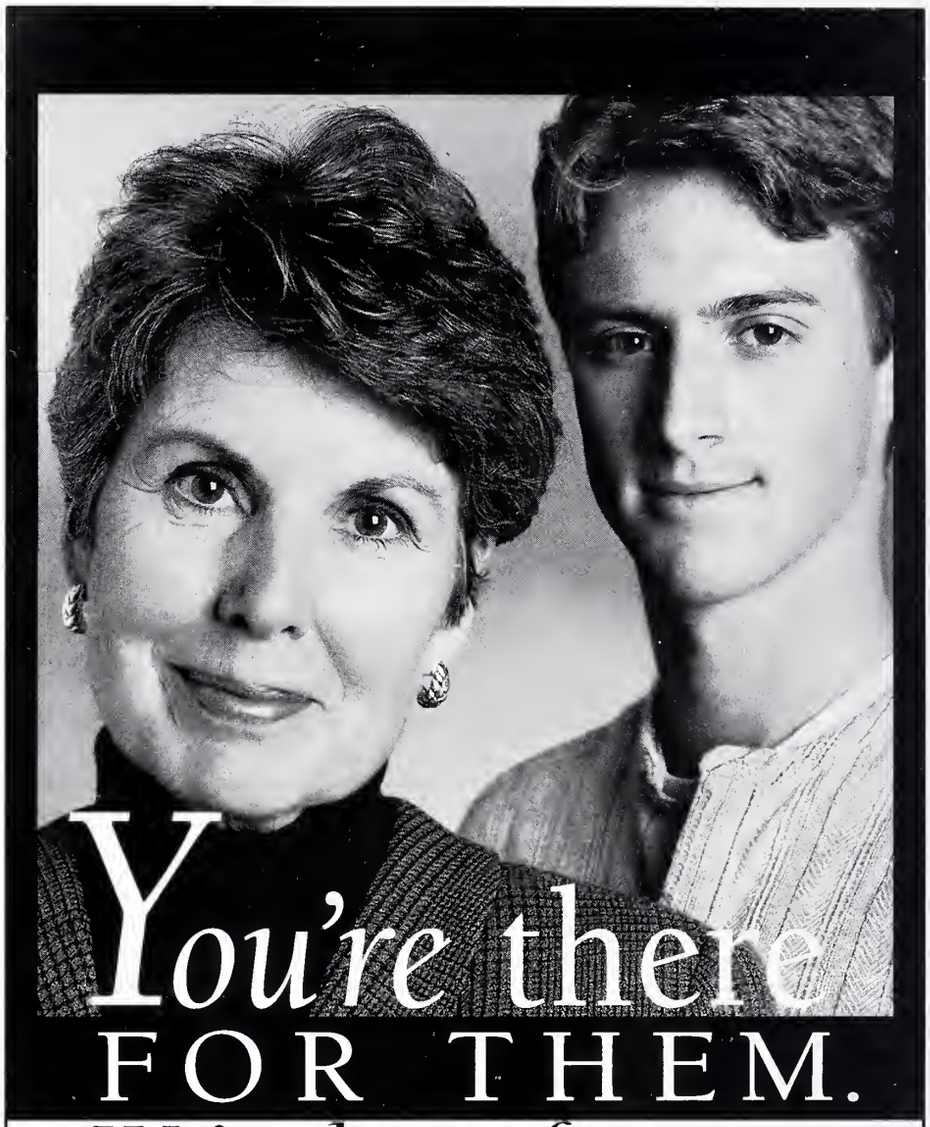
*Locums Coverage*
=
*Revenue*

- Patients falling through the gaps?
- Physician burn-out or illness?
- Shortage of physicians?

- Earn more with less time.
- No administrative headaches.
- Malpractice premium paid.

***Experience, Service, Honesty***
***Call (metro) 682-3852***
***(toll free) 888-682-3852***

***(You'll be glad you did!)***




*We're here for you.*

As a professional, parents look to you for help when their teens or young adults are in trouble with alcohol and drugs. And when you need a resource to provide that help, you can look to Hazelden Center for Youth and Families. Since 1981, our reputation for excellence has been built on an uncompromised commitment to young people and an understanding that professionals working in partnership offer the best chance for lasting recovery. You're there for them, we're here for you. Call us at (800) 833-4497.

HAZELDEN
Center for Youth and Families
Located in Plymouth, Minnesota
(800) 833-4497 • (763) 509-3800
www.hazelden.org

*©2000 Hazelden Foundation. To protect our clients' confidentiality, the individuals shown here are models.*

# MEDSTAT

SPECIALIZED MEDICAL TRANSPORTATION

***"A VITAL LINK BETWEEN PATIENT AND PHYSICIAN."***

**DEDICATED TO ASSISTING**

**THE MEDICAL COMMUNITY**

**IN THE PROVISION OF**

**OPTIMAL PATIENT CARE**

**AND CLIENT SERVICES.**

Much more than a courier service, MEDSTAT can meet the unique needs of the medical community. MEDSTAT's relationship with MMBR allows MMA members and their clinics to receive medical transportation rates that are generally below that of traditional transportation companies.

## MEDSTAT is a unique transportation system that can provide you with the following:

- Medical interoffice transport
  PATIENT RECORDS, FILMS, OFFICE CORRESPONDENCE, ETC.
- Laboratory specimen pick up and delivery
- Blood transport services
- Medical distribution
- Medical supply pick up and delivery
- Medical vendor/medical provider transport
- Pharmacy distribution
  RETAIL, WHOLESALE, COMMERCIAL AND INTRAVENOUS
- Home health care/patient interactive pick up and delivery
- Limited on-demand services

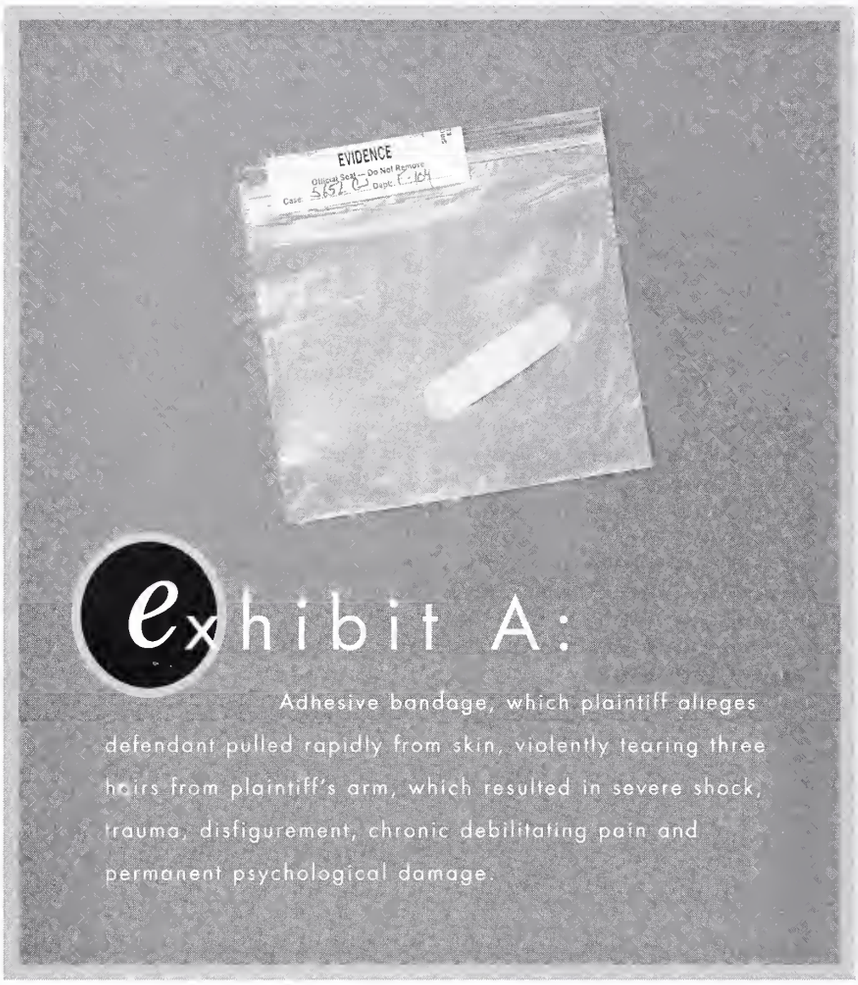
# MEDSTAT

SPECIALIZED MEDICAL TRANSPORTATION

***MEDSTAT SYSTEMS, INC.***
5155 East River Road, Suite 407
Fridley, MN 55421
Office: 612/586-8146
Toll free: 888/234-3618
Fax: 612/586-8147
email: vitallink@earthlink.net
www.medstatsystems.com

MMBR
MINNESOTA MEDICAL BUSINESS RESOURCES
OWNED BY MMA & HMS

**Minnesota Medical Business Resources**
3433 Broadway Street NE, Suite 395
Minneapolis, MN 55413
612/623-2860
e-mail: mmbr@mnmed.org
internet: mnmed.org/mmbr




To protect your reputation, we take every claim seriously.

Even the most absurd claims can be damaging if they're not handled properly. Which is why the full weight of our more than 60 years of experience in medical liability insurance is brought to bear on each and every claim, no matter how frivolous that claim may appear. In fact, when appropriate, we have appealed cases all the way to the United States Supreme Court, at no additional cost to policyholders. Because you can't put a bandage on a damaged reputation.

**The St Paul**
*Medical Services*

©2000 St. Paul Fire and Marine Insurance Company
Coverages underwritten by St. Paul Fire and Marine Insurance Company or another member of The St. Paul Companies. www.stpaul.com

# STOP HERE

YOU NAME IT–WE CAN MAKE IT!

- ◆ Bioidentical Natural Hormone Replacement Therapy
- ◆ Alternative routes of administration
- ◆ Discontinued or hard to find medications
- ◆ Custom dose and dosage form
- ◆ Solutions for unique medical problems
- ◆ Achilles Express Bone Density Testing

We are your "Problem Solving" Specialist!

*Custom-Rx Compounding Pharmacy*

Verne Betlach R.Ph. FIACP
Richfield Professional Building
6519 Nicollet Ave. S, Ste. 201
612-866-2211 fx 612-866-9217

***Dermatology, General Surgery, Internal Medicine, Neurology and Pediatrics***

There are immediate openings at Brainerd Medical Center for the following specialties: Dermatology, General Surgery, Internal Medicine, Neurology, and Pediatrics.

**Brainerd Medical Center, P.A.**
- 41-Physician independent multi-specialty group
- Located in a primary service area of 50,000 people
- Almost 100% fee-for-service
- Excellent fringe benefits
- Competitive compensation
- Exceptional services available at 162-bed local hospital, St. Joseph's Medical Center

**Brainerd, Minnesota**
- Surrounded by the premier lakes of Minnesota
- Located in central Minnesota less than 2½ hours from the Twin Cities, Duluth and Fargo
- Large, very progressive school district
- Great community for families

**Call collect to Administrator:**
Curt Nielsen
(218) 828-7105 or (218) 829-4901
2024 South 6th Street
Brainerd, MN 56401
email: bmc@brainerd.net
internet:www.brainerdmedicalcenter.com

BMC

## ANNOUNCEMENTS



### Register Online for Annual Meeting

Annual Meeting information, including registration forms, can be found on the MMA Web site at www.mnmed.org/about/am2000.html.

Registration must be completed on or before September 1. Please direct any questions to Vicki Westling at 800/342-5662 or 612/362-3764.

### Become Culturally Competent

To assist health care providers who wish to become more culturally competent, the MMA will provide training on issues related to culture factors and the practice of medicine.

The first of two seminars will be held October 19 in Rochester and October 26 in the Twin Cities. The second seminar will be held January 9 in Rochester and January 26 in the Twin Cities.

For more information, call Wendy O'Donnell at 612/362-3745.

# MMA: Alert Public About Sleepy Driving Hazards

Using a multi-pronged strategy, Minnesota Medical Association is working to open the public's eyes to a dangerous problem on Minnesota roads.

"Sleep deprivation can be as great a hazard as alcohol for drivers and for motorists who share the road with them," says Mark W. Mahowald, M.D., in his article, "Eyes Wide Shut: the Dangers of Sleepy Driving," which appears on page 25 of this issue of *Minnesota Medicine*.

To maximize the impact of Mahowald's article, the MMA issued a news release about the problem and sent a letter to Public Safety Commissioner Charlie Weaver asking that the drivers' education curriculum include information about sleepy driving.

The news release may encourage local media to give more coverage to behavior that causes as many as 31 percent of all automobile accidents. Drowsy driving results in slower responses, decreased alertness, and at its most dangerous stage, falling asleep at the wheel.

In its letter to Weaver, the MMA suggested that information on drowsy driving would be a natural addition to drivers' education curriculum regarding the effects of alcohol and illegal drugs on ability to operate a motor

*SLEEPY DRIVING cont. on p. 36*

# Wellstone Announces Universal Health Care Coverage Plan

Sen. Paul Wellstone held a conference call with local media and health care stakeholders, including the Minnesota Medical Association, on July 18 to discuss a universal health care proposal he has drafted.

Wellstone says the Health Security for All Americans Act (S. 2888) would leave it up to states to decide how to provide high quality, affordable, and comprehensive universal health care coverage to all citizens. "In this time of unparalleled economic prosperity, every American certainly ought to have the right to see a doctor when they need to, a doctor of their own choosing," he says.

The bill, which Wellstone introduced, gives states $700 billion—less than a third of the nation's budget surplus—over 10 years to help them achieve the goal of comprehensive universal coverage. It would provide incentives to states that achieve universal coverage early.

Under the proposal, families who earn less than $25,000 annually would pay no more than 0.5 percent of their income for health care coverage. Families earning between $25,000 and $50,000 would pay no more than 5 percent of their incomes, and no family would pay more than 7 percent of its income for health care coverage.

# VIEWPOINT

**Robert K. Meiches, M.D.**
*Chair, MMA Board of Trustees*



## Reducing the Margin of Error

The adage "To err is human, to forgive divine" may help in some aspects of our personal lives, but it does not go far toward building public trust in the safety of our health care systems. The Institute of Medicine's (IOM's) recent report on medical errors is of concern to all.

Although statistics differ, we know that medical errors represent a significant problem. Some data suggest that medical errors may be the fifth leading cause of death in the United States. Whether or not we agree about the size of the problem, we know it is too great. One error that leads to death is too many.

The Minnesota Medical Association is taking the issue of medical errors very seriously. The MMA, in partnership with the Minnesota Hospital and Healthcare Partnership and other health care organizations, has formed a Patient Safety Workgroup to discuss how to reduce errors. We have engaged in dialogue with the Commissioner of Health and with medical and health plan leaders throughout the state. As physicians, we have a professional, moral, and ethical obligation to reduce medical errors and create a safer health care environment.

There have been numerous success stories throughout the state. Perhaps you saw the July 17 issue of *US News and World Report*, which highlights the efforts of Children's Hospitals and Clinics in Minneapolis and St. Paul. In Minnesota, we are working hard and making progress toward reducing errors.

First, and probably foremost, is creating a culture of safety. All members of the health care team must learn from errors so they can prevent them in the future. Openness, not blame, is necessary. Let's find our mistakes, report and collect accurate information, diagnose the problems, and creatively fix the systems that lead to errors. The vast preponderance of errors is not the result of individual failures, but rather of broken systems that require repair. Physicians must be able to talk about patient safety in an effective and constructive fashion.

How can we foster a positive atmosphere that encourages dialogue leading to error reduction?

We must have accurate information that improves our understanding and helps us make constructive changes. All too often information is not available or is used to judge performance.

Health care systems often encourage behaviors that force errors underground, hiding them from discovery. The risk of lawsuits can also inhibit openness. Our obligation is to create a safe, open environment where errors can be reported and analyzed for the purpose of improvement without fear of repercussion.

Unfortunately, many have called for mandatory reporting of errors and public access to the National Physician Data Bank. Physicians must provide leadership in helping to educate decision-makers about proposals for mandatory reporting that will not improve patient safety, but rather drive errors underground. We must be able to create a system that protects the confidentiality of individual patient information, yet creates valuable information which can be shared to fix.

The problem of medical errors is real. The public is looking for solutions. The MMA must step forward to provide leadership, finding effective solutions to continue to improve the health care of our patients and to strengthen the role of physicians as professional leaders in the health care system. ■

# Children's Hospitals and Clinics Is Leader in Patient Safety

The July 17 issue of *U.S. News & World Report* featured Children's Hospitals and Clinics of Minneapolis and St. Paul in an article about America's best hospitals called "Taking the Mistakes out of Medicine."

Julie Morath, chief operating officer of Children's Hospitals and Clinics, and her efforts to reduce the hospital system's errors to zero, are the subject of much of the article. Morath is also a participant in a patient safety work group chaired by Paul Sanders, M.D., Minnesota Medical Association CEO, and Bruce Rueben, Minnesota Hospital and Healthcare Partnership president.

The article describes how many hospitals are increasing efforts to improve patient safety following a 1999 Institute of Medicine (IOM) report, which estimated that medical errors cause up to 98,000 deaths a year and cost as much as $29 billion annually. The institute called for a 50 percent reduction in such errors over the next five years.

When Morath, who was once a nurse, took the administrative position at Children's Hospitals and Clinics in 1999, she made patient safety her top priority. The hospital system now requires staff to discuss all mistakes that result in injury or near injury to patients, focusing on what went wrong, not who was at fault. Physicians, nurses, and other care providers are urged to think of new and safer procedures. Families of patients are also encouraged to participate in safety measures. Children's Hospitals and Clinics has also developed new safeguards for handling and dispensing medications.

Morath said she and other staff members used to compare their safety record with that of the industry, and found they measured up favorably. "Then all of a sudden it struck us that maybe the whole industry isn't good enough," she said.

While attending a series of meetings on reducing medical errors at Harvard University, Morath began to see medical errors as "breakdowns in a complex web of care rather than the responsibility of one nurse or doctor."

With confidential anonymous reporting procedures in place, Morath hopes staff members will report all accidents without fear of punishment, so everyone can learn from them.

She said studies show that only a small portion of medical errors is due to one individual's negligence. Most result from a chain of failures, she said.

Children's Hospitals and Clinics will spend $1 million this year to educate staff on ways to avoid medical errors.

# MMA Board of Trustees Meets, Votes for No Dues Increase

The MMA Board of Trustees held a meeting on July 15, at which the members voted to recommend that the House of Delegates approve a Committee on Administration and Finance motion that there be no changes in the level of 2001 MMA membership dues.

### Initiative 2000: Top Six Issues

Robert Meiches, M.D, MMA Board of Trustees chair, presented results of the MMA Initiative 2000 survey. The survey asked physicians to decide on the issues the MMA should address in order to remain an effective advocate for physicians and their patients. The following issues were most frequently listed by physicians as advocacy priorities for the MMA: (1) elimination of the provider tax; (2) contracting and health plan relationships; (3) patient protection and safety; (4) MMA structure and governance; (5) medical education; and (6) health care access and affordability.

### AMA Delegates Will Run for Reelection

The following MMA delegates to the AMA House of Delegates whose terms expire on December 31 will seek reelection: Frank J. Indihar, M.D.; Carolyn J. McKay, M.D.; and Audrey M. Nelson, M.D. The following alternate delegates will also run for reelection: Raymond G. Christensen, M.D.; Kenneth W. Crabb, M.D.; Anthony C. Jaspers, M.D.; and John M. Van Etta, M.D.

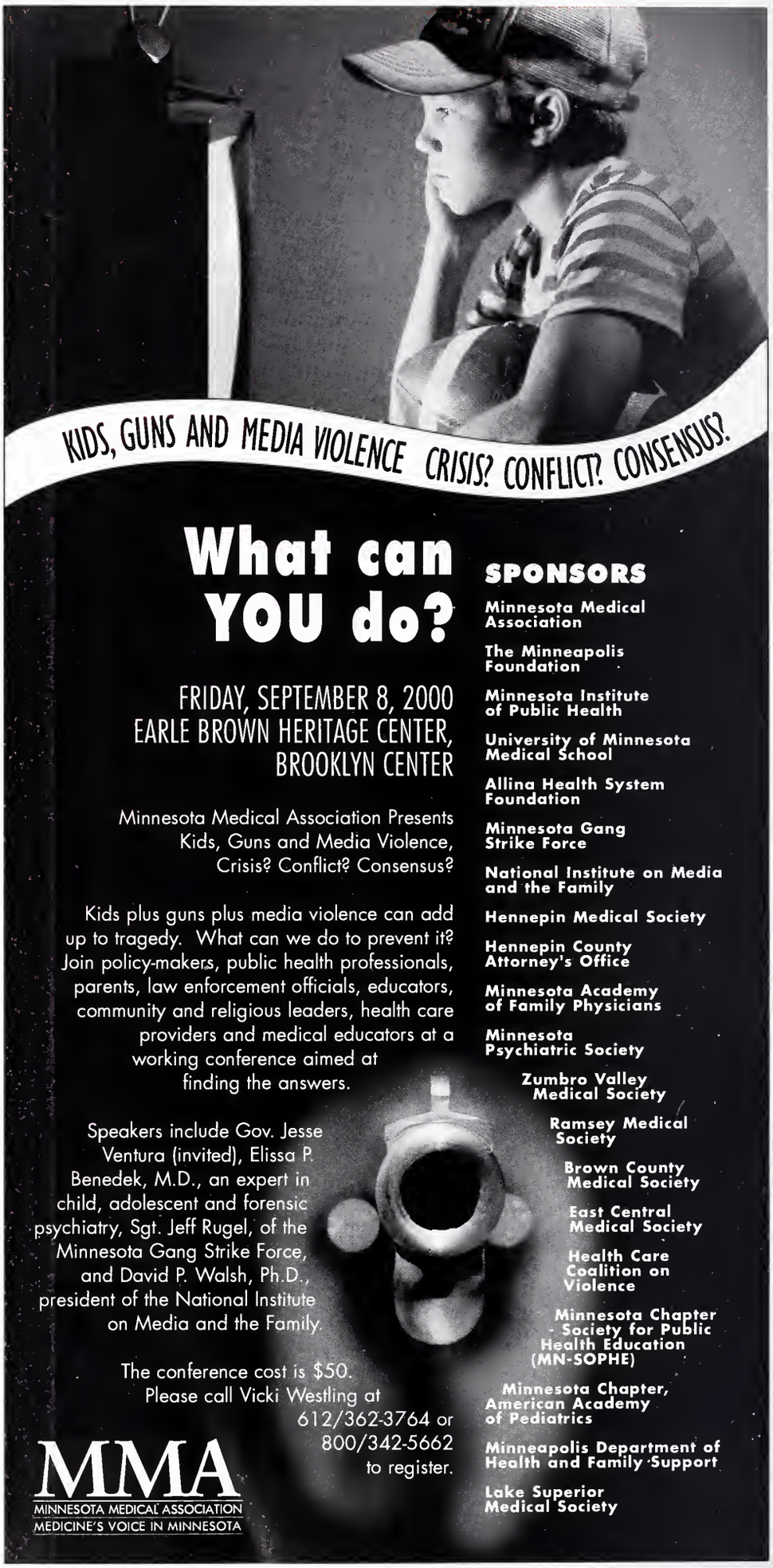
## *SLEEPY DRIVERS from p. 33*

vehicle. People who stay up all night are as impaired as if they had 0.10 percent blood alcohol concentration, the level at which it is illegal to drive.

The sleepy driving campaign is a result of resolutions adopted by the1999 MMA House of Delegates. Resolution 314, which was submitted by the MMA Committee on Public Health and Preventive Medicine, called on the MMA to define sleepiness behind the wheel as a major public health issue through the development of a public education campaign. It further resolved that the MMA delegation to the American Medical Association (AMA) submit a resolution to the AMA calling on the AMA to define sleepiness behind the wheel as a major public health issue through the development of a national public education campaign.

Resolution 315, also submitted by the MMA Committee on Public Health and Preventive Medicine, called on the MMA to work with interested organizations to promote the incorporation of an educational component on the dangers of driving while sleepy in all drivers' education classes (for all age groups) in the state of Minnesota. It further resolved that the MMA delegation to the AMA submit a resolution calling on the AMA to encourage all state medical associations to promote the incorporation of an educational component on the dangers of driving while sleepy in all drivers education classes (for all age groups) in each state.

The AMA adopted, as amended, the Minnesota resolution that addressed resolutions 314 and 315, voting to encourage a national public education campaign by appropriate federal agencies and relevant advocacy groups.



# NEWS DIGEST

*People and places making medical news*



## People & Places

Twin Cities health care provider **HealthSystem Minnesota** will be known as **Park Nicollet** beginning in September. The formal corporate name of **Park Nicollet Health Services** will include all entities owned by HealthSystem Minnesota, including **Methodist Hospital, Park Nicollet Clinic, Park Nicollet Foundation,** and **Park Nicollet Institute.**

**The University of Minnesota's Carlson School of Management** appointed **James W. Begun, Ph.D.,** professor of healthcare management, to chair its top-ranked Department of Healthcare Management. Begun, who joined the department in 1997, previously spent 14 years as a professor and director of doctoral studies at the **Medical College of Virginia** at **Virginia Commonwealth University.**

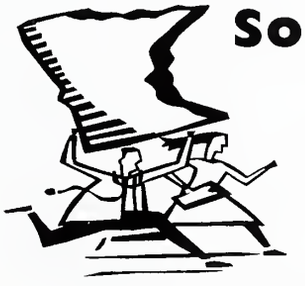
Orono resident **Rodney P. Burwell,** chair of **Xerxes Corporation,** was elected chair of **Fairview Health Services'** board of directors.

Several Minnesota physicians joined 5,000 AIDS specialists worldwide to sign the Durban Declaration, a statement to leaders of African governments about the AIDS pandemic. The document was the first coordinated effort by the world's scientific community to mobilize against AIDS in Africa. Sub-Saharan Africa is home to 24 million people with AIDS.

Among those signing were **Keith Henry, M.D.,** medical director of the HIV/AIDS Program at Regions Hospital in St. Paul; **Henry Balfour, M.D.,** professor, University of Minnesota Medical School; and **Ronald Schut, M.D.,** assistant professor, University of Minnesota Medical School and director of the HIV clinic at Hennepin County Medical Center; **Frank Rhame, M.D.,** research director at Abbott Northwestern Hospital; and **Leslie Schiff, Ph.D.,** University of Minnesota. **Ashley Haase, M.D.,** Regents' Professor and head of the Department of Microbiology at the University of Minnesota, was one of 250 to serve on the Durban Declaration Organizing Committee.

**Abdhish Bhavsar, M.D.,** is one of 18 doctors nationwide selected to participate in the 2000-2001 Leadership Development Program by the **American Academy of Ophthalmology.** Bhavsar has worked at the **Retina Center** since 1997.

**Mayo Clinic** garnered the second-highest ranking overall on *U.S. News and World Report*'s annual list of "America's Best Hospitals." It was No. 1 in five specialties, including neurology and orthopedics. The rankings identify hospitals where consumers can get the best care in 17 medical specialties. **Hennepin County Medical Center** ranked No. 38 in treatment of hormonal disorders. **Fairview University Medical Center** also made the list, ranking No. 17 in kidney disease. Of the 6,247 hospitals rated, 173 were ranked as the best hospitals. ■



## Socioeconomics

### Judge Throws Out Medicare Payment Lawsuit

**U.S. District Judge Donald Alsop** dismissed a lawsuit brought by **Attorney General Mike Hatch** and the **Minnesota Senior Federation** attempting to declare unconstitutional the current Medicare payment formula. Medicare HMO premiums vary from state to state, and Minnesota seniors pay the highest premiums in the country—$3,000 a year

⇨

or more—while residents in Florida and California get similar coverage free. Hatch and the co-plaintiffs argued that the current system, which bases federal Medicare payments on costs of medical care in the region, discriminates against residents of Minnesota. Although he dismissed the lawsuit, Alsop urged Congress to enact legislation to fix the inequities in the system.

### Minnesota Congressmen behind Prescription Drugs Bill

Rep. Collin Peterson was one of five Democrats to vote with House Republicans for a bill that would add a voluntary prescription drug benefit to Medicare. President Clinton promised to veto the bill, arguing it does not go far enough. A newly passed bill, authored by Republican Rep. Gil Gutknecht and supported by many House Democrats, makes it easier for seniors to import cheaper prescription drugs from other countries. The pharmaceutical industry and the FDA oppose the import bill, saying it could introduce dangerous products.

### Alexandria Nurses Get Favorable Ruling

An administrative law judge recommended to the National Labor Relations Board that the more than 20 nurses who were fired after striking at an Alexandria, Minnesota, clinic last year be reinstated with back pay. The clinic fired the nurses because they started picketing four hours later than they had planned and failed to notify the clinic about the new time. The judge determined that the nurses delayed the strike time to serve patients during the busiest clinic hours and that the nurses had given the clinic the required 10-day notice of intent to strike.

**Blaine Medical Center**

is seeking BC/BE Family Practitioner to join four Family Practitioners in a growing practice located in northern tier suburb of the Twin Cities.

Excellent salary and benefit package. Shareholder potential after one year.

Blaine Medical Center is affiliated with Multicare Associates, an independent physician owned practice with locations in Blaine, Fridley, and Roseville.

CONTACT:
**Steve Bentz, M.D.**
**at 612-785-8544 or**
**Jeannine Schlottman**
**at 612-785-3338.**

www.multicare-assoc.com

## Public Health



### Hennepin Board Approves Anti-Smoking Policy

The Hennepin County Board approved a modified version of a contentious anti-smoking policy. As of September 18, smoking will be prohibited within a 15-yard radius of all pedestrian entrances to county buildings and county workers may smoke only during lunch and break times, when riding in their own vehicles, or while working at home without county clients present. The initial version, supported by board chair Randy Johnson but opposed by other board members and county employees, would have made all county properties smoke-free by 2003 and prohibited workers from smoking anywhere while working.

### Hepatitis B Vaccine Required for New Kindergartners

Beginning this fall, children must have proof of at least having started the three-dose series of hepatitis B shots. Routine immunization for hepatitis B has been a standard public health recommendation since 1991 but was only added to the state's school immunization law in 1998. Starting in fall 2001, entering seventh-graders also must show evidence of this immunization.

### MDH Awards $4.7 Million in Tobacco Prevention Grants

The Minnesota Department of Health has awarded $4.7 million in grants to community groups to reduce smoking rates among the state's young people. The community-based grants are the newest component of the comprehensive Youth Tobacco Prevention Initiative funded by the 1998 settlement of Minnesota's lawsuit against the tobacco industry. The initiative aims for a 30 percent reduction in youth smoking rates by 2005.

### Lymerix Label Omits Possible Arthritis Link

The label for Lymerix, the Lyme disease vaccine that was approved in 1999 by the Food and Drug Administration and is manufactured by SmithKline Beecham, does not mention a "theoretical potential" for causing arthritis in genetically susceptible individuals. A SmithKline spokesper-

son told Newhouse News Service that the FDA did not consider it necessary to include that information in the prescribing literature.

During earlier clinical trials, however, participants had been informed about the theoretical link to arthritis. Dozens of vaccine recipients since then have alleged that they developed severe symptoms of arthritis after the inoculation, and several lawsuits have been filed. SmithKline denies the link.

### New Law to Protect Birth and Death Records from Fraud

The Minnesota Department of Health, which maintains vital records, will administer the new "tangible interest" law that took effect on August 1 to safeguard birth and death certificates against fraud. The practice of obtaining such records without legitimate reason has been growing nationwide. "Tangible interest" refers to legitimate reasons for obtaining these records, such as for school registration or settling an estate.

### EPA Bans Pesticide

The EPA banned the widely used insecticide chlorpyrifos, or Dursban, based on findings that it damages the brain in newborn rats and causes weakness, vomiting, diarrhea, and other symptoms in children. By the end of 2000 the chemical, which is used in products that control roaches, fleas and ticks, ants, and other insects, will be virtually eliminated from home use. It will no longer be manufactured and will be off store shelves by the end of 2001. Vincent Garry, M.D., professor of environmental medicine and pathology at the University of Minnesota, said Dursban may be less hazardous than the insects it eliminates, citing the large number of children with asthma living in roach-infested homes. Other environmental health leaders have praised the ban.

## Rates, Trends & Data



### New Reports Shed Light on Causes and Effects of Injuries

New Minnesota Department of Health studies of deaths from injury between 1993 and 1997 reveal that falls are a leading cause of nonfatal injury for all age groups, motor vehicle accidents account for most injury-related deaths for people ages 1 to 64 (suffocation ranked first for infants under age 1 and adults 65 to 74), and suicide by firearms was a second-leading cause of death for people aged 15 to 54. State health commissioner Jan Malcolm says the data will help public health agencies and policymakers develop prevention strategies. The reports are available by calling the MDH Injury and Violence Prevention Unit, 651/281-9857.

### Latest Stats on U.S. Kids Are Mixed

The Federal Interagency Forum on Child and Family Statistics reported that rates of poverty, mortality, teen pregnancy, and juvenile violence among youth 18 and younger are at a 20-year low. Yet, rates of binge drinking, cigarette smoking, and drug use remained stable, and school graduation rates declined. The report is issued annually.

10,000 Lakes

The rustic beauty of Minnesota is etched in valleys, prairies, high bluffs, rocky shores, and ***thousands*** of lakes. Not just a recreational paradise--Minnesota boasts a wealth of cultural activities as well.

Over 100 primary care and other specialty positions are available in rural Minnesota communities.

**Minnesota Center for Rural Health placement services include...**

- Matching positions that meet your personal needs
- Compensation package and loan repayment information
- Objective, accurate information on specific medical practice opportunities
- Substantive contract review and negotiation assistance

***For More Information Contact:***
Minnesota Center for Rural Health
600 E. Superior Street, Suite 404
Duluth, MN 55802
Phone: 800-997-6685
Fax: 218-727-9392
www.ruralcenter.org/mcrh

**Physician Employment Opportunities Available at WINONA CLINIC, LTD.**

**General Internal Medicine**
** concentrated area of study in Cardiology or Gastroenterology is a plus, but NOT required*
(position available in 2001)

**Orthopedic Surgery**
(position currently available)

**Pediatrics**
(position available in 2001)

Our staff of 30+ medical providers is looking forward to welcoming you, as you begin your practice at this thriving, independent, physician-owned, multi-specialty clinic, located in a family-oriented community situated along the Mississippi River in the beautiful bluff country of southeastern MN.

*For additional information, contact:*
**Human Resources Director**
**Winona Clinic, Ltd.**
**420 East Sarnia Street**
**Winona, MN 55887**
**Phone: 507-457-7686**
**Fax: 507-457-7672**

# Research & Innovations



### Sibling Umbilical Cord Blood Transplants Reduce GVHD Risk

In a study comparing 113 children who had umbilical cord blood transplants from a sibling and 2,052 children who had traditional bone marrow transplants from a sibling, researchers at the **University of Minnesota** and elsewhere found that children who received cord blood have a lower risk of a future life-threatening disease than recipients of traditional bone marrow transplants. The finding is significant because of its implications for treating deadly diseases such as leukemia.

The researchers, whose study was published in the June 22 *New England Journal of Medicine*, found that fewer cord blood recipients (14 percent) than bone marrow recipients (24 percent) developed graft-vs.-host disease (GVHD). A similar trend was seen in a three-year follow-up with respect to chronic GVHD. The children in the study, who were aged 15 years or younger, showed similar mortality.

### Most Patients Satisfied with Bilateral Prophylactic Mastectomy

**Mayo Clinic** researchers have found that most women who have undergone surgical removal of both breasts to reduce their cancer risk are glad they did. In the study, which was published in the July 19 *JAMA*, 609 women who had bilateral prophylactic mastectomy between 1960 and 1993 received questionnaires. Of the 572 who responded, 70 percent reported being satisfied or very satisfied with the surgery. Dissatisfaction was most frequently linked to adverse side effects, including implant worries, negative body image, and too little information and support.

**Marlene Frost**, lead author of the study and a nurse researcher at Mayo, told the *St. Paul Pioneer Press* that the results of the study give women objective information that they can use to decide whether to have the procedure.

### Vitamin B-12 Helps Detect Tumors

A venous infusion of vitamin B-12 and radioactive atoms followed by an imaging scan can help detect cancerous tumors, which absorb B-12 in large quantities. **Mayo Clinic** diagnostic radiologist **Douglas Collins, M.D.**, said the infusion and imaging technique may help doctors find cancer earlier and could also suggest new methods of treating tumors. **University of Minnesota** biochemist **Harry Hogenkamp, Ph.D.**, co-authored the study of 30 patients, which was published in the June 13 *Mayo Clinic Proceedings*.

The noninvasive technique uncovered tumors in 90 percent of the patients studied. The scans also differentiated malignant and nonmalignant tissue in eight of nine women with dense breast tissue. Next the researchers will study whether chemotherapy can be attached to the vitamin and transported to tumors to destroy them. ■


INTERNAL MEDICINE PHYSICIANS

United Pain Center in St. Paul is seeking two BE/BC internal medicine physicians interested in working in a multidisciplinary setting managing patients with acute, subacute and chronic pain. This is a challenging opportunity to work with a highly motivated and successful team in an outpatient setting. The team consists of anesthesiologists, internal medicine, nurse practitioners, psychologist and social worker. Our center offers a unique blend of interventional procedures, case management, psychological services and complementary therapies with consultative services provided to the hospital. Contact Allina Hospitals and Clinics, Physician Recruitment, 8450 City Centre Drive, St. Paul, MN 55125.
800-248-4921 or
recruit@allina.com.
Not a J1 site.

www.allina.com

ALLINA. Hospitals & Clinics



LOOKING FOR LOCUM TENENS?

LOOK FOR THE FRIENDLY DOCTOR



Whitesell
Medical Locums, Ltd.

Benefits for the Hospital/Clinic:
- Highly qualified physicians that are B.E./B.C.
- Fill your positions during illness, vacation and understaffing.
- Prevent loss of revenue.
- We handle all administrative details.
- Competitive rates

Benefits for the Physician:
- Experience a complete range of practice styles.
- Fully paid malpractice insurance
- Explore options or new services before making permanent decisions.
- A chance for senior physicians who no longer desire the responsibility of running a practice to stay clinically active.

Metro 763-682-5906
Toll Free 800-876-7171
Fax 763-684-0243
Web www.mnlocums.com

*Minnesota Medicine* is the official journal of the Minnesota Medical Association, and its purpose is to provide Minnesota physicians with timely information regarding all aspects of medicine so they can more capably serve their patients and more readily achieve their professional goals. Therefore, the editors are pleased to consider for publication clinical and health papers (clinical studies, reviews, case reports) and essays, letters, and opinion pieces related to medical practice in Minnesota.

## Manuscripts

Submit clinical articles, essays, letters, book reviews, and other manuscripts at any time to: Meredith McNab, Managing Editor, *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761. Manuscripts are reviewed by the editors and peer reviewed by the Advisory Committee, the Review Board, and other experts in particular specialties.

Please submit two copies and keep one for your files. You may submit a Macintosh or IBM-compatible ASCII (text) floppy disk with your manuscript. Disks and copies of unpublished manuscripts will be returned to the authors. Only submit unpublished articles that have not been submitted elsewhere.

A cover letter should identify the author with whom we should correspond (include address and phone number). Double-space all text on one side of paper only, including references, legends, etc., and number pages consecutively.

Receipt of manuscripts is acknowledged within 10 days, and authors are usually notified whether their manuscript is accepted within one to three months, but longer delays are sometimes unavoidable.

## Title and Authors' Names

The first page of the manuscript should include: 1) a title—make it short, specific, and direct, 2) the full names of all authors, with their academic degrees, 3) authors' positions in hospitals or other institutions—include current position and the position held when the work reported in your manuscript was done, as well as academic appointments and other information pertinent to the paper's topic.

## Abstract

The second page of the manuscript should include an abstract no longer than 150 words that highlights for the reader the essence of the authors' work. It should focus on facts rather than descriptions and should emphasize the importance and uniqueness of the findings and briefly list the approach used for gathering data and the conclusions drawn.

## Author Responsibility

All authors should be involved in the drafting, revision, and intellectual content of the manuscript and be sufficiently familiar with the paper to defend its findings. Authors are responsible for all statements made in their work, *including changes made by copy editors*. Manuscripts are edited for clarity and grammar and to conform to *Minnesota Medicine* style, and authors receive an edited, word-processed copy of their paper for their review before it is sent to the printer. Once it is set in galleys, only *minor* changes can be made.

All authors sign a copyright form that conveys all copyright ownership to the Minnesota Medical Association. This form is mailed to the authors after a manuscript is submitted to *Minnesota Medicine*, and must be completed and returned before the article is published. If the manuscript is not accepted for publication, the form is returned to the authors.

## Style

Use *JAMA* style or consult the AMA's *Manual for Authors & Editors*. Use generic drug names, unless citing a brand name relevant to your findings; brand names in parentheses may follow generic names if desired. Do not use abbreviations in the title, and limit their use in the text. Avoid medical jargon.

## Tables

Tables must have a title and be on separate pages. If they occupy more than one page, type "*title* (cont.)." If the data in the tables have been previously published, appropriate reference should be given in the text, and permission should be obtained from the original publisher before submission to *Minnesota Medicine*.

## Illustrations

Submit two copies of illustrations, keeping one for your files. Figures should be professionally drawn or photographed, if possible. We prefer glossy, clear black-and-white photographs, but color is acceptable if the contrast is good. Do not send original artwork.

Each figure should have a label pasted on the back indicating the figure number, author names, and the top of the figure. Legends should be included in the text of the manuscript with numbers corresponding to the figures. Do not mount figures on cardboard, write on the back of the figures, or attach paper clips to them. If a patient in a photo is identifiable, a written release form from the subject must accompany the photo.

## References

All references must be cited in the text and should be arranged in the order in which they are cited in the text—*not* alphabetically. Journals should be abbreviated as in *Index Medicus*.

Examples:

1. Benson RC Jr. Laser photodynamic therapy for bladder cancer. Mayo Clinic Proc 1986;61:859-64.

2. Guttormson NL, Bubrick MP. Mortality from ischemic colitis. Dis Colon & Rectum, to be published.

3. Chaterjee SN. Use of GOR-TEX grafts as vascular access procedure for chronic hemodialysis. Abstract of a paper submitted to the European Society for Artificial Organs Eighth Annual Meeting, Copenhagen, August, 1981.

4. Thompson NW. Thyroid and parathyroid. In: Welch KJ, Randolph JG, Ravitch MM, et al., eds. Pediatric Surgery, 4th ed. Chicago: Year Book Medical, 1986:522-33.

## Financial Interest

List all affiliations with or financial interest in organizations that may have a direct interest in the subject matter of your manuscript. This information will be held in strict confidence until publication, and then will be printed with the article as is deemed appropriate in judging the validity of the article.

## Reprints

Authors may order article reprints for a fee. Reprint request forms are sent to authors at the time of publication.

# Searching for ways to put more time back into your day?

# MSBC can help.




**You don't need to resort to cloning yourself to regain control of your time commitments.**

Your colleagues have honored you by electing you to serve as an officer of your society. They respect your professionalism and leadership skills. You've got the ideas and ambition it takes to make your society an integral part of your profession. However, the thought of you and your office staff taking time away from patients to manage the day-to-day activities of your association somehow takes away the thrill of what should be a very exciting time for you. Management Services By Choice (MSBC), a program of the Minnesota Medical Association, can help. Our professional staff will work directly with you to expand, improve, or develop new programs to best serve your membership. Call 612/378-1875 or 800/342-5662 or visit our Web site for more information–www.mnmed.org/MSBC.

**MSBC offers a wide range of affordable, efficient services designed specifically to meet the administrative needs of medical societies, large and small.**

MSBC
MANAGEMENT SERVICES BY CHOICE
A PROGRAM SPONSORED BY THE MMA

# Project LID (Lower Infant Deaths)

## *Lessons Learned from a Local Infant Mortality Review Project*

Cheryl Fogarty, M.P.H., B.S.N., Abbey Sidebottom, M.P.H., Neal Holtan, M.D., M.P.H., and Virginia Lupo, M.D.

ABSTRACT

**Project LID (Lower Infant Deaths) is an infant mortality review project conducted by the Minneapolis Department of Health and Family Support and the Saint Paul-Ramsey County Department of Public Health. Infant death occurs when a live-born infant dies before age 1. Multidisciplinary teams reviewed 112 infant-mother cases involving infant death using vital and medical records. Open-ended maternal interviews were conducted for approximately half of the cases. This combination of quantitative and qualitative data provided insights into the contributing social, medical, and environmental factors experienced by some families in Hennepin and Ramsey counties. Case review teams developed recommendations to address factors identified in each case. Recommendations are directed to health care providers, professional societies, health systems, government organizations, policymakers, and community- and school-based organizations. This article describes findings from the project and presents recommendations for Minnesota physicians with practices in obstetrics, family medicine, and pediatrics.**

In 1996, Minneapolis and St. Paul had infant mortality rates nearly twice that of the entire state of Minnesota. The counties containing these two cities also had higher infant mortality rates than the state as a whole. The 1996 state rate dropped to 5.9 infant deaths per 1,000 life births, well below the national Year 2000 Public Health Goal of 7 infant deaths per 1,000 live births. But neither of these urban areas met its infant mortality goal. Table 1 shows recent infant mortality trends in Minnesota's most urban areas compared with the state and national trends.[1]

The higher infant mortality in the Twin Cities compared with that in the state is similar to the pattern in other areas of the United States. One explanation for higher infant mortality and other poor health outcomes in urban areas is concentrated poverty. Poverty is associated with higher rates of unplanned pregnancy, single mothers, teen mothers, and low birth weights.[2]

Birth and death statistics provide information on the distribution of some infant mortality risk factors in the Twin Cities. Table 2 displays several of the risk factors that have been associated with infant mortality in other studies.[3]

While the data collected on birth and death certificates are useful for surveillance of infant mortality rates, they are not detailed enough to enable the development of community interventions or to direct efforts to lower infant mortality rates. Researchers also conducted comprehensive case reviews to examine how social, medical, and environmental risk factors affect the lives of mothers and infants in the Twin Cities area. The project's goal was to develop recommendations for improving the systems of care and services provided during pregnancy and infancy.

In addition to birth and death certificate information, Project LID abstracted medical records and gathered information from interviews with mothers regarding their pregnancy and birth experience, difficulties they encountered, and information they were given. These interviews enriched the quantitative data on infant mortality. We believe that this information is useful for guiding policy and programmatic strategies to reduce infant mortality in the Twin Cities area.

The purpose of this article is to report the lessons learned in Project LID and to share the project's specific recommendations to reduce infant deaths.*

## *Methods*

### Sample cases

Sample cases were defined as deaths of infants (live-born infants who died before the age of 1 year) whose families were residents of Hennepin or Ramsey counties. There were a total of 173 infant deaths during the study

*This article focuses on findings and recommendations most relevant to health professionals. The full report, "Lowering Infant Deaths: Promoting Change to Save Lives," contains recommendations for a variety of audiences, including government, health systems, schools, and community organizations. This report is available from the Minneapolis Department of Health and Family Support at 612/673-2301.

Table 1

*Infant mortality rates (deaths per 1,000 live births)*

| | Minneapolis | St. Paul | Hennepin County | Ramsey County | Minnesota | United States |
|---|---|---|---|---|---|---|
| 1994 | 9.8 | 7.3 | 8.4 | 7.5 | 7.0 | 8.0 |
| 1995 | 12.2 | 9.4 | 8.6 | 7.4 | 6.8 | 7.6 |
| 1996 | 10.4 | 10.1 | 7.2 | 8.6 | 5.9 | 7.2 |
| 3-year average | 10.8 | 8.9 | 8.1 | 7.8 | 6.6 | 7.6 |
| Year 2000 goal | 7.0 | 6.0 | 5.0 | 6.0 | 6.0 | 7.0 |

Table 2

*Infant mortality risk factors* (1997)

| | Minneapolis | St. Paul | Hennepin County | Ramsey County | Minnesota |
|---|---|---|---|---|---|
| Births to teens (<18) | 6.3% | 6.2% | 3.5% | 4.7% | 3.1% |
| Low birth weight | 8.0% | 7.4% | 6.6% | 6.7% | 5.9% |
| Preterm birth | 8.9% | 7.6% | 8.3% | 7.6% | 8.0% |

period (May 1, 1996, to April 30, 1997). Of these, 118 were randomly selected for review. We were unable to review two cases, one because the medical record was unavailable, the other because criminal proceedings were in progress until project LID was over. The data reported here are for 116 infants, including four sets of twins, and 112 mothers.

### Medical records

Medical records were available to Project LID for infants and mothers under Minnesota Statutes, Section 145.90. This statute allows the commissioner of health (or those with whom the commissioner contracts) access to medical records to conduct fetal, infant, and maternal death studies to assist in planning, implementation, and evaluation of health and social service delivery systems. This community-based surveillance is justified from a public health perspective because of local communities' desire to improve service delivery systems to all pregnant women and infants in order to reduce preventable deaths. Medical records were abstracted using forms from the National Fetal and Infant Mortality Review program (NFIMR), a joint project of the American College of Obstetricians and Gynecologists and the Maternal and Child Health Bureau of the Department of Health and Human Services. Medical records containing information pertaining to the pregnancy or outcome of the pregnancy were abstracted, including hospital, clinic, emergency, public health, and autopsy and medical examiner's records when indicated.

### Interviews

Public health nurses trained by the project staff conducted interviews with 46% of mothers in our sample using a modified version of the NFIMR maternal interview. Mothers received $35 for participating in the interviews. Mothers were asked to describe their understanding of what happened to their babies, how the deaths were explained to them, and what advice they had for the systems of care in their community. Interview nurses also provided grief support and resources according to the parents' needs.

### Case reviews

Infant death case summaries were prepared for review from abstracted medical records, birth and death records, and from the maternal interview (when available). No information that would identify families, providers, or institutions was included in these summaries. Three interdisciplinary case review teams were assembled, one representing institutions and organizations in St. Paul and Ramsey County, one representing Hennepin County, and one representing the city of Minneapolis. As suggested by the NFIMR protocols, Project LID assembled teams representing public health, physicians, nurses, and other health care providers, law enforcement, social services, child protection, and medical examiners. All three teams were racially and ethnically diverse.

The tasks of the case review teams were to (1) review all of the compiled data, (2) review the cause of death and determine whether they agreed with the causes and order of causes on the death certificate, (3) identify factors associated with each infant death, and (4) develop recommendations to address those factors.

## *Results*

### Mothers

Table 3 provides descriptive information about the 112 mothers in the Project LID sample. Information for this table came from both the interviews and medical records. Type of insurance was noted from the medical records. In Hennepin and Ramsey counties in 1996 there were 13 deaths for every 1,000 live births to teens (age 19 and younger). This death rate for infants born to teens is disproportionately higher than the total infant mortality rates for those counties (7.2 and 8.6). Infants born to teens represent 9.5% of births in Hennepin and Ramsey counties but 16% of infant deaths.[4] Teen mothers represent nearly 17% of Project LID's sample.

Thirty-three percent of the mothers in our sample started prenatal care late (after 12 weeks of gestation) or did not receive any prenatal care prior to delivery. The women had insufficient prenatal care because they did not have or had lost insurance during the pregnancy, were homeless, used drugs and/or alcohol, were a teen without support and felt too sick to keep appointments, and because of poor communication and record sharing between providers when they were transferred to another clinic. Language barriers and cultural beliefs also prevented women from getting care in the first trimester. Two women moved to the area very late in their pregnancies.

Violence was a significant problem for women in our sample. As shown in Table 4, 15% of the women in our sample experienced violence either during pregnancy or during the life of the infant. Of the 17 who experienced violence, two women died violently before Project LID could interview them; one death was homicide, the other, suicide. Case review team members believe that at least one preterm birth was precipitated by domestic violence.

Table 4 shows that 27% of Project LID mothers were identified (through either medical records or interviews) as using alcohol, tobacco, or illegal drugs during pregnancy. The most commonly used substance was tobacco. For 21% of women this information is unknown, either because we were unable to determine if this risk factor was assessed in the prenatal evaluation or we do not have interview data for these women.

From maternal interview data (n=51), we have information about birth control use and pregnancy planning, and whether the pregnancies were wanted. When asked about their reactions to finding out they were pregnant, 35% of mothers stated that they wanted to be pregnant; another 4% had been hoping to get pregnant sooner. However, 30% of the women interviewed said their pregnancy was unwanted or mistimed: 24% didn't want to be pregnant at all, and 6% reported wanting to be pregnant at a later time. Several women stated they were not using contraception because they thought they "could not get pregnant," and several women stated they did not like the side effects of hormonal contraception.

### Teen mothers

Seventeen percent of mothers in Project LID were teens, but as shown below, teens had more social and environmental risk factors for infant mortality than older mothers in our sample. Key findings about teens include:

- Three of the 12 LID mothers who were homeless were teens (25%).
- Nine of the 17 LID mothers who experienced violence were teens (53%).
- Fifteen of the 30 LID mothers who used alcohol, tobacco, or other drugs were teens (50%).
- Both of the deaths from intentional injury (ruled homicides) were of infants born to teen mothers. In both cases, the mother's boyfriend was the perpetrator.

### Infants

Table 5 demonstrates that preterm and very preterm births, which are inclusive of low-birth-weight births, contributed to the majority of deaths reviewed by Project LID: 72 of the total 116 infant deaths. Medical, social, and behavioral risk factors contributing to these deaths included infection, preterm labor, premature rupture of membranes, incompetent cervix, tobacco and drug use, and

Table 3

*Descriptive information on mothers of LID cases (n=112)*

| | |
|---|---|
| **Age** | |
| <19 | 17% |
| 20-24 | 23% |
| 25-29 | 23% |
| 30-34 | 24% |
| 35-39 | 13% |
| 40+ | 3% |
| **Marital status** | |
| Single | 51% |
| Married | 49% |
| **Race** | |
| African American | 13% |
| American Indian | 5% |
| Asian | |
| East Indian | 2% |
| Hmong | 8% |
| Other SE Asian | 3% |
| Hispanic | 5% |
| White | 64% |
| **Educational status** | |
| Less than high school | 21% |
| High school/GED | 33% |
| Some college | 18% |
| College degree | 24% |
| Unknown | 5% |
| **Employment status** | |
| Unemployed | 29% |
| Employed | 54% |
| Student | 2% |
| Unknown | 16% |
| **Gravida** (including LID case) | |
| 1 | 29% |
| 2 | 26% |
| 3 | 19% |
| 4 | 6% |
| 5-12 | 21% |
| **Primary insurance** | |
| Medical Assistance | 34% |
| HMO | 21% |
| Non-HMO | 13% |
| MNCare | 3% |
| Private Insurance | 58% |
| HMO | 41% |
| Non-HMO | 17% |
| Self-Pay (uninsured) | 1% |
| Unknown | 3% |
| **Weeks' gestation at first prenatal care visit** | |
| 5-12 | 67% |
| 13-26 | 16% |
| 27-39 | 6% |
| No Care | 8% |
| Unknown | 3% |

Table 4

*Social and behavioral risk factors of mothers (n=112)*

| | |
|---|---|
| Experienced violence during pregnancy or life of the child | 15% |
| Experienced homelessness during pregnancy or life of the child | 11% |
| Used alcohol, drugs, or tobacco during pregnancy | |
| Yes | 27% |
| Alcohol | 6% |
| Tobacco | 23% |
| Marijuana | 8% |
| Cocaine | 6% |
| Other drugs | 3% |
| No | 52% |
| Unknown | 21% |

domestic violence. Many of the project's recommendations address these risk factors.

Of the eight infants who died from unintentional injury, four were determined to be deaths caused by overlay. Case review teams suspected that two additional deaths of these eight infants were also caused by overlay. Overlay occurs when a parent or caregiver lies over the infant, causing death by crushing the chest and/or blocking the airway while both are sleeping. Case review teams identified substance abuse as a contributing factor in seven of the injury cases, including all six associated with overlay. Substance use—including drugs, alcohol, and tobacco—was identified as a contributing factor in 16 other (noninjury) deaths. Twelve of these were preterm births, and the four infants who were not preterm died of Sudden Infant Death Syndrome (SIDS).

As mentioned previously, violence was a significant problem for mothers in our sample. We know that four infants experienced violence in their lives, with two dying from intentional injuries.

## Discussion

It was clear to the three case review teams that in many cases of infant death the care was fragmented; communication between patients and providers was poor; patients' history and record sharing between providers was problematic; and cultural, social, and behavioral risk factors were not adequately addressed. Discussions of these cases among the experienced professionals on the case review teams revealed that these issues pervade the systems of care, affecting many more pregnancies and births. In discussing a woman with few risk factors, one physician put it this way: "This patient fits the profile of what the system is designed for. Yet, it failed her in many respects."

Representatives of health plans serving on the case review teams acknowledged that providers are often under pressure to increase patient loads. At the same time, other cost-control measures have resulted in less-skilled clinic staff screening and assessing risks, providing prenatal education, assuring that women receive other needed services, and following up women who fail to keep prenatal appointments. The medical abstractor for Project LID found notations in many prenatal records that a "prenatal packet" was given to the patient, but no documentation of discussion or opportunity for questions and answers with a professional. The case review teams speculated that women who come to prenatal care overwhelmed by their life circumstances probably do not spend much time reading pamphlets on their own.

As previously described, teen mothers experience a disproportionate number of infant deaths. Eight of Project LID's 19 births to teen mothers were healthy, full-term infants who died before their first birthday because of social and environmental circumstances. They died of homicide, unintentional injury, and infection. All were preventable deaths. The teen mothers and fathers of Project LID cases lacked support, resources, parenting skills, knowledge of symptoms of illness and newborn development, and stable living situations. These babies were discharged from metro hospitals without follow-up care by a public health nurse or social worker, services that are available in Hennepin and Ramsey counties.

While congenital anomalies contributed substantially to infant deaths, deaths related to preterm births far exceeded deaths from congenital anomalies. This suggests that resources be allocated for interventions that decrease preterm births, including early and regular prenatal care, smoking cessation, and decreasing illicit drug use.[5]

We cannot overstate the importance of high-quality prenatal care and preconception care in improving pregnancy and birth outcomes. Prenatal care provides an opportunity to treat chronic health problems, improve nutrition and weight gain, screen for and treat pregnancy-related conditions, educate all women about pregnancy and childbirth, and refer women with social and behavioral risk factors to additional services if needed.

## Project LID Case Review Teams' Recommendations

**Infants born to teenage mothers should be considered at higher risk** for mortality than the general population. Physicians can refer pregnant and parenting teens to the county family services in either Hennepin or Ramsey county or contact the public health nursing agency and/or community-based organizations such as Way To Grow in Minneapolis and the Children's Initiative in St. Paul.

**Address the problem of some teens' unstable living situations** by having a home visitor make contact with the mother and baby while they are still in the hospital and by getting additional contact information from each mother. (Referral numbers provided on page 48.)

Table 5

*Infant birth outcomes*

| | |
|---|---|
| **Gestational age** | |
| Previable (<23 weeks) | 30% |
| Preterm/Viable (24–36 weeks) | 32% |
| Full term (37+ weeks) | 37% |
| Unknown | 1% |
| **Birth weight** | |
| Very low birth weight (<1500g) | 46% |
| Low birth weight (1500–2500g) | 12% |
| Normal birth weight (2500+) | 42% |
| **Age at death** | |
| <1 day | 44% |
| 2–28 days | 19% |
| 29–365 days | 37% |
| **Cause of death (from case review teams)** | |
| Preterm birth | 41% |
| Congenital anomalies | 27% |
| SIDS | 10% |
| Infection | 3% |
| Intrauterine hypoxia/birth asphyxia | 5% |
| Unintentional injury | 7% |
| Intentional injury | 2% |
| Complications of placenta | 1% |
| Undetermined/Unknown | 4% |

**Provide culturally appropriate prenatal education** in the patient's first language and document the following minimum educational components:

- Effects of tobacco, alcohol, and drugs on pregnancy outcome
- Signs and symptoms of preterm labor
- Other symptoms that require a call to the doctor
- Appropriate nutrition and weight gain
- Appropriate physical activity
- Preparation for labor and delivery
- Monitoring fetal movements
- Hazards to avoid during pregnancy
- Family planning and the implications of close child spacing
- Value and importance of preconception care for next pregnancy.

**Encourage questions and evaluate the patient's understanding** of the material through a dialogue with a nurse or a health educator. Printed educational materials may enhance, but should not replace, contact with a professional.

**Assess medical, social, and behavioral risk factors** and identify patients with complex medical and social needs early in pregnancy. Link high-risk families with care coordination services by referring to the county's public health nursing agency.

**Screen all women for domestic violence** at regular intervals during and after pregnancy. At a minimum, discreetly provide resource information. When injuries are observed or suspected, advise and/or help the patient contact the police and refer her to appropriate community resources.

**Follow up missed appointments promptly** and continue to follow up until the provider is assured the patient has transferred care to another provider.

**Streamline methods for the timely sharing of medical records.** Decrease the fragmentation of women's and infant's health care related to poor communication between providers.

**Provide resources for smoking cessation** during pregnancy and parenting. Emphasize benefits to mother, fetus, infant, and the rest of the family. Repeat these messages throughout pregnancy and to parents of infants. Research indicates that providers can implement low-cost interventions during prenatal care that effectively reduce smoking and improve birth weight and infant health.[6,7] Other research indicates that reducing smoking during pregnancy improves health and decreases health care costs.[8]

**Educate parents about SIDS risk reduction:**

- Practice "Back To Sleep" (putting the infant on his or her back for sleep), and use a firm mattress and a safe bed.
- Do not overheat infant.
- Do not expose fetus or infant to tobacco smoke.
- Breastfeed.

**Educate parents to choose safe, healthy child** care. Provide a list of specific features to look for and questions to ask. Reinforce with a brochure and/or video that can be shown in clinic waiting rooms. Inform parents of the limitations of the licensing and registering systems. Advise parents to talk to child care providers about SIDS risk reduction, especially "Back To Sleep," and risks of environmental tobacco smoke. Currently, 43% of SIDS deaths in Minnesota occur in child care settings.[9]

## *Conclusion*

Project LID demonstrated the effectiveness of infant mortality case reviews for increasing the understanding of factors related to infant deaths in Hennepin and Ramsey counties. Recommendations were conveyed to public health officials, including the Minnesota commissioner of health, administrators of health insurance companies and health maintenance organizations, health care workers, managers of social service agencies, and the general public, including pregnant women. These detailed reviews will help us reduce infant mortality by devising effective changes in the health care and social service systems.

One of the hardest lessons for case review teams to accept was that infant deaths occurred because of a lack of attention to risk factors or failure to refer certain pregnant women for community services. Also difficult was the realization that in many of the cases there were multiple, seemingly intractable problems, the kind that bedevil our entire society, such as drug abuse, violence, poverty, and a lack of a social support network for the neediest and most vulnerable. The disadvantages experienced by some of the mothers suggest that health care and public health systems should do more to help families with their problems.

The reviews themselves helped the team members form a supportive professional network that crossed their professional boundaries and

dramatically demonstrated their interdependence in evaluating infant deaths. Although discouraged by problems and failures, team members were relieved that most of the mothers had had at least some contact with health and social services workers. However, the recommendations reflect the reviewers' and authors' opinion that all the systems of perinatal care and services need improving. MM

*Cheryl Fogarty is the infant mortality consultant for the Minnesota Department of Health. At the time this project was conducted, she was the director of Project LID, working for both the Minneapolis Department of Health and Family Support and the Saint Paul-Ramsey County Department of Public Health. She co-authored the report "Lowering Infant Deaths: Promoting Change to Save Lives."*

*Abbey Sidebottom is an epidemiologist with the Minneapolis Department of Health and Family Support. She analyzed the data for Project LID and co-authored the report "Lowering Infant Deaths: Promoting Change to Save Lives."*

*Neal Holtan, medical director of the Saint Paul-Ramsey County Department of Public Health, was co-principal investigator of the pilot Project LID in 1993 and was the facilitator for the Saint Paul-Ramsey Case Review Team for the current project.*

*Virginia Lupo is director of Maternal-Fetal Medicine at Hennepin County Medical Center and was a member of Project LID's Hennepin County Case Review Team.*

## *Acknowledgments*

Funding for this project was provided by the Minnesota Department of Health from the state's Infant Mortality Reduction Initiative funds.

REFERENCES

1. Minnesota Department of Health, Center for Health Statistics, 1994 Minnesota Health Statistics, Jan. 1996. 1995 Minnesota Health Statistics, Jan. 1997. 1996 Minnesota Health Statistics, Jan. 1998.
2. Matteson D. Infant mortality: a multi-

## *Resources*

### Hennepin County

Minnesota Visiting Nurse Agency
2021 East Hennepin Avenue, Suite 230, Minneapolis, MN 55413
Intake: 612/617-4700

Adolescent Parent Program
Hennepin County Family & Children's Services
612/348-6948

Way To Grow
2610 Grand Avenue South, Minneapolis, MN 55408
612/874-4740

Greater Minneapolis Day Care Association
1628 Elliott Avenue South, Minneapolis, MN 55404
612/341-2066

### Ramsey County

St. Paul-Ramsey County Department of Public Health
50 West Kellogg Boulevard, Suite 930, St. Paul, MN 55102-1657
Intake: 651/266-2455

Minor Moms Program
Ramsey County Human Services
160 East Kellogg Boulevard, Room 6000, St. Paul, MN 55101
651/266-4862 or 651/266-3759

St. Paul Children's Initiative
450 North Syndicate Street, Suite 290, St. Paul, MN 55104
651/917-4896

Resources For Child Caring
450 North Syndicate Street, St. Paul, MN 55104
651/641-0332

### Smoking Cessation Materials

"Make Yours A Fresh Start Family"
Midwest Division of the American Cancer Society
800/582-5152

The American College of Obstetricians and Gynecologists
202/638-5577

### Statewide

Minnesota Sudden Infant Death Center
2525 Chicago Avenue South, Minneapolis, MN 55404
Kathleen Fernbach, director: 612/813-6285

Minnesota Department of Health
Maternal and Child Health Section
P.O. Box 64882, St. Paul, MN 55164-0882
Cheryl Fogarty, infant mortality consultant: 651/281-9947

level analysis of individual and community risk factors. Soc Sci Med 1998;47(11): 1841-54.
3. Minnesota Department of Health, Center for Health Statistics. 1997 Minnesota Health Statistics, Jan. 1999.
4. Minnesota Department of Health, Center for Health Statistics. 1996 Minnesota Health Statistics, Jan. 1998.
5. Goldenberg RL, Rouse DJ. Prevention of premature birth. N Engl J Med 1998;339 (5):313-20.
6. Windsor RA, Woodby LL, Miller TM, Hardin JM, Crawford MA, DiClemente CC. Effectiveness of Agency for Health Care Policy and Research clinical practice guideline and patient education methods for pregnant smokers in Medicaid maternity care. Am J Obstet Gynecol 2000;182(1):68-75.
7. Klerman LV, Rooks JP. A simple, effective method that midwives can use to help pregnant women stop smoking. J Nurse Midwifery, 1999;44(2):118-23.
8. Lightwood JM, Phibbs CS, Glantz SA. Short-term health and economic benefits of smoking cessation: low birth weight. Pediatrics 1999;104(6):1312-20.
9. Minnesota Sudden Infant Death Center. Minnesota Sudden Infant Death Selected Statistics—Minnesota Infants 1990-1996. 1996.

Clear blue skies, fresh air, wide-open spaces and clean lakes await you. MeritCare Medical Group is seeking talented, energetic physicians to join thriving, diverse practices.

MeritCare Medical Group is a 350-physician multi-specialty group with a strong primary care base and MeritCare Hospital is a 380-bed tertiary/trauma hospital. Fargo-Moorhead is a tri-college community of 160,000 with excellent public and parochial schools and a park department that provides activities for all age groups year round.

Recently named "All American City"

We are seeking BC/BE physicians in the following specialtics:

**Adult Psychiatry**
**Anesthesiology**
**Cardiology & Electrophysiology**
**Child/Adolescent Psychiatry**
**Dermatology**
**EatingDisorders Clinician**
(PhD, PsyD or Masters prepared)
**Family Practice**
(Fargo, ND; E. Grand Forks, MN; Jamestown, ND)
**General Psychology**
**General Surgery** (Valley City, ND)
**Hematology/Oncology**
**Internal Medicine (Hospital)**
**Interventional Radiology**
**Neonatology**
**Nephrology**
**Neurology**
**Optometry (Mayville)**
**Orthopaedics (Fargo & Jamestown)**
**Otolaryngology**
**Pediatrics**
**Reproductive Endocrinology**
**Rheumatology**

Contact Kathleen Toft, Physician Recruiter, 737 Broadway, Fargo, ND 58123 or call 1-800-437-4010 or fax vitae to 701-234-2316. My e-mail address is kathetoft@meritcare.com or check our web site at www.meritcare.com

MeritCare Medical Group
EOE/AA Employer

Minnesota Regional Sleep Disorders Center for Adults and Children at

Hennepin County Medical Center
HCMC
Level 1 Trauma Center

For program services and referrals call
**(612) 347-6288**

MULTICARE ASSOCIATES OF THE TWIN CITIES

Multicare Associates of the Twin Cities, a multispecialty/multi-location clinic, located in the northern suburbs of Minneapolis/St. Paul, has available positions for BC/BE physicians in the following departments:

**Family Practice**
**Internal Medicine**
**OB/GYN**

Excellent salary/benefits package includes paid insurance, flexible benefits plan, 401K, profit sharing, continuing medical education. Shareholder status potential after one year.

Contact Jeannine Schlottman
Administrator
7675 Madison St. NE
Fridley, MN 55432
763/785-3338
www.multicare-assoc.com

**Minnesota Opportunities**

Delacore Resources, also known as *"The Minnesota Recruiter,"* has opportunities in Minnesota for the following types of physicians:

- **Dermatology**
- **Emergency Medicine**
- **Family Practice**
- **General Surgery**
- **Internal Medicine**
- **OB/GYN**
- **Orthopedic Surgery**
- **Pediatrics**
- **Psychiatry**

A detailed practice profile is available, or visit our website at **www.mnrecruiter.com**

*Contact The Minnesota Recruiter confidentially at*

Delacore Resources
**1-800-967-2711**
**FAX (320) 587-7252**
**delacore@hutchtel.net**



Introducing the
# Thermal Brewing System
from US Office Products and MMBR

# "Coffee, anyone?"

**Enjoy fresh great-tasting coffee all day long. Here are a few reasons to consider adding the thermal brewing system and the US Office Products coffee service to your clinic:**

CALL 651/688-9384

TODAY FOR MORE

INFORMATION ON HOW TO

GET GREAT-TASTING

COFFEE IN YOUR CLINIC'S

BREAKROOM TOMORROW.

ASK FOR ANY OF

THESE MMA ACCOUNT

REPRESENTATIVES:

ERIC WICKAM,

MARIE CHRISTIANSON,

OR JIM CHRISTIANSON.

- ☑ Choose from an extensive line of excellent coffees ranging from as low a **4¢ per cup** to 12-13¢ per cup (for Starbucks). This offer provides MMBR Members special pricing lower than the already low pricing given any other US Office Products customers on coffee and related breakroom products.
- ☑ The patented thermal carafes provide hot fresh coffee for 12+ hours without using burners or additional heating.
  - No burnt-tasting coffee
  - No wasted, thrown-away coffee
  - No burners left on overnight
- ☑ Qualifying practices will receive a free coffee tasting and a free pack of Starbucks coffee.
- ☑ Great breakroom products when you need them; order your coffee over the phone or the internet and enjoy it in your breakroom tomorrow.

US Office Products℠

MMBR
Minnesota Medical Business Resources
Owned By MMA & HMS

# The Association of Poverty and Low Immunization Rates in ZIP Code Areas

## *A Retrospective Survey of Minnesota Kindergartners*

Alan R. Lifson, M.D., M.P.H., Margaret Roddy, M.P.H., and Kristen R. Ehresmann, R.N., M.P.H.

ABSTRACT

**This study evaluated indicators of poverty in Minnesota ZIP code areas with low childhood immunization rates. During 1996–1997, a retrospective survey of 68,639 Minnesota kindergarten children was conducted; 68% received four doses of diphtheria, tetanus, and pertussis vaccine, three doses of polio vaccine, and one dose of measles, mumps, and rubella vaccine (4:3:1) by 24 months of age. Of 447 ZIP codes further evaluated, 24 (5%; 13 urban and 11 rural) had 4:3:1 immunization rates at 24 months of ≤50%. None of 159 ZIP codes in which <5% of residents were below the poverty line had immunization rates ≤50%, compared with 9 (32%) of 28 ZIP codes with ≥15% of residents below the poverty line (p<0.001). Immunization rates were lowest in ZIP codes with a lower median family income and greater proportion of residents below the poverty line. Surveys such as this can help immunization programs target and monitor prevention activities for these pockets of need.**

During 1990, a major outbreak of measles occurred in Minnesota, with 462 confirmed cases.[1] Many measles cases were in unvaccinated children residing in inner-city neighborhoods, including children involved in various social programs for economically disadvantaged populations.[2] National surveys and studies in other states have identified socioeconomic status as an important determinant of vaccination status, with lower immunization rates in children who are poor.[3-7]

In 1992–1993, the Minnesota Department of Health (MDH) conducted a comprehensive retrospective survey of immunization rates among children enrolled in kindergarten programs throughout the state.[8] Only 61% of 2-year-olds had been fully immunized with a primary series of recommended vaccines, far below the national goal of having 90% of all 2-year-olds fully vaccinated.[9] Immunization rates in this survey varied by race/ethnicity, age, and geographic area of residence.[8]

Studies of immunization coverage have typically focused on characteristics of individual children who are unimmunized. It is also valuable to consider the characteristics of the geographic communities in which these children reside. Improving rates in these "pockets of need" is essential for improving overall immunization coverage in Minnesota.

In 1996–1997, MDH conducted a repeat statewide retrospective kindergarten survey. In this report, we analyze data from that survey to evaluate characteristics of ZIP codes with the lowest immunization rates, focusing on the association between geographic areas with low rates and indicators of poverty. Understanding the characteristics of communities in which a large number of children are unimmunized is important for developing relevant and effective immunization strategies, and for targeting limited public health resources.

## *Methods*

### Immunization survey

This retrospective survey evaluated data from all children enrolled in Minnesota kindergarten programs during the 1996–1997 school year. MDH compiled a comprehensive list of all public and private kindergarten programs in the state and collaborated with all 87 local health departments, five city public health agencies, and local school nurses to obtain immunization data for all kindergarten enrollees. Data collected from each record included date of birth, race/ethnicity, and ZIP code of residence. Dates of vaccination were collected from school records for immunizations against diphtheria, tetanus, and pertussis (DTP); measles, mumps, and rubella (MMR); and polio. School programs routinely collect this information to monitor compliance with the state's school immunization law. Data were also collected on exemptions to immunization because of medical contraindications, conscientious objection, or history of disease.

### Census data

For each of the ZIP codes included in this analysis, data were evaluated on median family income, proportion of the population below the poverty line, proportion of the population

living in urban and rural areas, and racial/ethnic composition. This information, including income as reported for 1989, was obtained from the 1990 U.S. Census.[10] In this census, a sample of persons 15 years of age and older was asked about all sources of income, including wages or salary, interest income, Social Security, public assistance, disability, and all other sources of compensation. Family income is the combined income of all family members in a household; a family is defined as two or more persons who occupy a housing unit and are related by birth, marriage, or adoption. Families or unrelated individuals are classified below the poverty level when their total income is below the appropriate poverty threshold. The poverty thresholds vary depending upon criteria, including size of family and number of children.

### Analysis

A child was considered to be "up-to-date" at 24 months age if he or she had received four doses of DTP (whether containing whole cell or acellular pertussis), three doses of polio vaccine (whether oral or inactivated), and one dose of MMR. ZIP code–specific immunization rates were identified, and ZIP codes with the lowest rates (≤50%) were compared with all other ZIP codes.

The statistical association between two categorical variables was evaluated using the chi-square test. The association between two continuous variables was evaluated using correlation coefficients. Multivariate analysis was performed using linear regression analysis, with both independent and dependent factors entered as continuous variables.

## *Results*

### Study population

Data were collected on 69,772 kindergarten children, of whom 68,639 had information recorded indicating residence in one of Minnesota's 87 counties; 49% lived in the seven-county Minneapolis-St. Paul metropolitan area, and 51% lived in greater Minnesota. These children were enrolled in 1,138 public and private schools in 355 different school districts. Ninety-nine percent of the children were born during 1990 (40%) or 1991 (59%). Of 61,784 children for whom race/ethnicity was recorded, 84% were Caucasian, 7% Asian/Pacific Islander, 4% African-American, 3% Hispanic, and 2% Native American.

### Immunization rates among children

Of all kindergarten children retrospectively evaluated, 72% had documentation showing they had received four doses of DTP; 78%, three doses of polio vaccine; and 87%, one dose of MMR by the age of 24 months. In total, records from 46,994 (68%) children indicated that they were up-to-date on the 4:3:1 series by 24 months. Of those children who were not up-to-date, only 1% had received exemptions from immunization for philosophical or religious reasons, and <1% for medical reasons.

Seventy-two percent of Caucasian, 55% of Native American, 50% of African-American, 44% of Hispanic, and 42% of Asian/Pacific Islander children were up-to-date on the 4:3:1 vaccine series at 24 months of age. Non-Caucasian children were significantly less likely than Caucasian children to be up-to-date at 24 months (46% vs. 72%, p<0.001).

### Immunization rates by ZIP code

A total of 905 ZIP codes throughout Minnesota were represented in this study. In some ZIP codes, there were only a few children, resulting in imprecise estimates with wide confidence intervals for ZIP code–specific immunization rates. However, for 447 ZIP codes, there were at least 20 children per ZIP code; a total of 65,291students (or 95% of the total sample) lived in these 447 ZIP codes. The 4:3:1 immunization rate at 24 months for children residing in these ZIP codes was 68.6%.

Subsequent analyses were limited to these 447 ZIP codes. Forty-six (10%) of these ZIP codes had 4:3:1 immunization rates for 24-month-olds of >80%, 164 (37%) had rates between 70.1% and 80.0%, 146 (33%) had rates of 60.1% to 70.0%, 67 (15%) had rates of 50.1% to 60.0%, and 24 (5%) had rates ≤50%. Considerable variation in ZIP code–specific rates was seen within a given county in both urban and rural areas. For example, of 20 ZIP codes in this analysis from Ramsey County, four had rates <50%, while five had rates >80%.

The 24 ZIP codes with the lowest immunization rates (≤50%) included 5,920 children, representing 9% of all children in our sample of 447 ZIP codes. In these 24 ZIP codes, 3,347 children were not up-to-date on their 4:3:1 immunizations at 24 months; these children represent 16% of all underimmunized children in our sample. Therefore, 16% of all underimmunized children lived in only 5% of all ZIP codes.

Median family income was identified from the 1990 census for 438 of the 447 ZIP codes in our analysis. ZIP codes with the lowest immunization rates (≤50%) were more likely to have lower median family incomes (p<0.001) (see the table, page 53). Of 105 ZIP codes in which the median family income was >$40,000 per year, only one (1%) ZIP code had 4:3:1 immunization rates for 24-month-olds of ≤50%. In contrast, of 59 ZIP codes with a median family income of <$25,000, 10 (17%) had immunization rates ≤50%.When median family income and immunization rate were evaluated as continuous variables, these two factors were significantly correlated (g=0.429, p<0.001), with poorer ZIP codes having lower immunization rates.

ZIP codes with a greater proportion of residents below the poverty line were also more likely to have low immunization rates (p<0.001) (see the table). None of the 159 ZIP codes in which less than 5% of residents were below the poverty line had immunization rates ≤50%, compared with 9 (32%) of the 28 ZIP codes in which 15% or more of residents were below the poverty line. When percent below the poverty line and immunization rate were evaluated as continuous variables, these factors were inversely correlated (g=-0.413, p<0.001).

Of those ZIP codes with immunization rates ≤50%, 13 were in predominantly urban and 11 were in

Table

*Comparison of ZIP codes with immunization rates above and below 50%: Minnesota comprehensive retrospective kindergarten survey, conducted 1996-1997*

| | Total ZIP codes | Number with Rates ≤50% | Number with Rates >50% | |
|---|---|---|---|---|
| **Median Family Income** | | | | p<0.001 |
| <$25,000 | 59 | 10 (17%) | 49 (83%) | |
| $25,000–$40,000 | 274 | 13 (5%) | 261 (95%) | |
| >$40,000 | 105 | 1 (1%) | 104 (99%) | |
| **Residents below Poverty Line** | | | | p<0.001 |
| ≥15% | 28 | 9 (32%) | 19 (68%) | |
| 5.0–14.9% | 251 | 15 (6%) | 236 (94%) | |
| <5% | 159 | 0 (0%) | 159 (100%) | |
| **Population in Urban and Rural Areas** | | | | p=0.33 |
| > 50% in urban areas | 195 | 13 (7%) | 182 (93%) | |
| > 50% in rural areas | 243 | 11 (5%) | 232 (95%) | |
| **Non-Caucasian Population** | | | | p<0.001 |
| ≥15% | 24 | 10 (42%) | 14 (58%) | |
| 5.0%–14.9% | 57 | 4 (7%) | 53 (93%) | |
| <5% | 357 | 10 (3%) | 347 (97%) | |

Immunization rates retrospectively determined for receipt of four doses of diphtheria, pertussis, and tetanus vaccine; three doses of polio vaccine; and one dose of measles, mumps, and rubella vaccine by 24 months of age.

predominantly rural areas (as defined by the U.S. Census Bureau). ZIP codes with immunization rates ≤50% did not differ significantly from other ZIP codes in the proportion that were predominantly urban or rural (see the table).

ZIP codes with immunization rates ≤50% were more likely to have a higher proportion of residents who were non-Caucasian (p<0.001) (see the table). When percentage non-Caucasian and immunization rate were evaluated as continuous variables, these two factors were inversely correlated (g=-0.251, p<0.001).

The proportion of the population that was non-Caucasian was somewhat inversely correlated with median family income (g=-0.191), and strongly correlated with the proportion of residents in a ZIP code below the poverty line (g= 0.708). In a linear regression model with non-Caucasian population and median family income as continuous variables and immunization rate as a continuous outcome, both a higher proportion non-Caucasian population and lower median family income were significant (p<0.001) predictors of low immunization rates. In a second linear regression model with a non-Caucasian population and percentage below the poverty line as continuous variables, percentage below the poverty line (p<0.001), but not percent non-Caucasian (p=0.18), was a significant predictor of low immunization rates.

## Discussion

This study has important implications for the distribution of preventive health services in Minnesota. Although the overall immunization rate among Minnesota kindergartners for the 4:3:1 series at 24 months was 68%, we identified ZIP codes in which less than half of 2-year-old children were adequately immunized. Of all children who were not up-to-date on their immunizations, 16% lived in only 5% of all ZIP codes. ZIP codes with the lowest immunization rates were located in both urban and rural areas and were characterized by a higher proportion of residents living in poverty.

National surveys and other studies have identified poverty as a risk factor for low immunization rates.[3-7] Poverty has been associated with poorer overall child health,[11] a greater number of unhealthy days in adults,[12] and mortality in both elderly and nonelderly adults.[13,14] The association between poverty and poorer immunization status may reflect a variety of underlying factors, including those related to education, social norms, family size and structure, personal beliefs, distrust of the health care system, adequacy of medical care, lack of insurance and other financial barriers, lack of a routine source of health care, and decreased access to physicians and other medi-

cal services. Provision of free vaccine, although very important, does not in itself guarantee adequate immunization levels.[3,15,16] Disadvantaged families may face multiple barriers, including lack of flexibility in scheduling appointments, long waiting times, transportation problems, employment conflicts, and lack of child care for other children.[17,18] If some poor families have recently immigrated to the United States from other countries, language, cultural, social, and other barriers may even further decrease utilization of preventive services.

Although non-Caucasian race/ethnicity was a predictor of ZIP codes with immunization rates ≤50%, it did not remain significant after adjusting for percent of residents below the poverty line. Racial/ethnic differences in health outcomes may reflect a complex interplay of factors, including those related to socioeconomic status and access to care.[19]

### Study limitations

This study of kindergartners has several potential limitations. First, the study was conducted in 1996–1997; therefore, most children were 24 months of age during 1992–1993. Since 1992, many programs have been implemented, including state and county immunization action plans. However, a 1997 national survey of immunization coverage in children 19–35 months of age found that children living below the poverty level still had significantly lower coverage than other children for all vaccines.[6] Although the state's demographics (with corresponding pockets of need) may have changed since 1993, it is likely that the relationship between poverty and lower immunization levels has not. Additional state-specific surveys can help to evaluate this question.

Second, this study evaluated coverage for DTP, polio, and MMR vaccinations, mandated as part of the school-entry requirements. Although data were not collected on other immunizations such as hepatitis B and varicella, it can be expected that geographic areas with low rates for the DTP, polio, and MMR vaccines have low rates for other immunizations as well.

Finally, characteristics of a ZIP code area do not necessarily reflect the characteristics of all individuals living in that area. However, as noted above, the association we found between poverty and low immunization rates for ZIP codes has also been reported by other studies evaluating immunization status in specific individuals.

### Strategies for improvement

Strategies that have been promoted to improve immunization rates in disadvantaged and other populations include targeted information and education, immunization registries with reminder/recall; day care and school-entry requirements; provision of free vaccine or first-dollar coverage by insurance plans; home visits; school immunization clinics; clinic-based assessment and feedback; expanded access to clinics where vaccines are administered; and vaccination programs in Women, Infants and Children (WIC) clinics.[20-25]

Our analysis reinforces the need for programs in Minnesota specifically targeted at geographic and demographic pockets of need. The methodology described in this analysis is valuable for identifying and monitoring these pockets of need. Identifying geographic areas with the lowest immunization rates pinpoints areas for further study. We need to identify pervasive community characteristics that hamper public health efforts to achieve statewide and national goals of at least 90% immunization coverage.[9,26] Understanding the social and economic environment in which underimmunized populations are more likely to reside is also essential for developing targeted and effective interventions. Closing disparities between the poorest areas and other geographic regions in immunization rates and other health indicators ultimately reflects Minnesota's ability to provide preventive health care to all of its residents, including those who may need it most. MM

*Alan Lifson and Margaret Roddy are with the Acute Disease Prevention Services Section, Minnesota Department of Health, and Kristen Ehresmann is with the Acute Disease Epidemiology Section of the Health Department.*

## Acknowledgments

We wish to acknowledge and thank the many school nurses and local public health officials throughout Minnesota who collected data for this project. We also wish to thank the following staff of the Minnesota Department of Health: Bernie Brown, Eloise Gelner, Skip Powell, Susan Soliva, and Paulette Tichenor.

### References

1. Minnesota Department of Health. Annual summary of communicable diseases reported to the Minnesota Department of Health, 1990. Disease Control Newsletter, 1991;19:39-40.
2. Minnesota Department of Health. Measles in Minnesota, 1990. Disease Control Newsletter, 1990;18:58-60.
3. Bates AS, Fitzgerald JF, Dittus RS, Wolinsky FD. Risk factors for underimmunization in poor urban infants. JAMA 1994;272:1105-10.
4. Williams IT, Milton JD, Farrell JB, Graham NM. Interaction of socioeconomic status and provider practices as predictors of immunization coverage in Virginia children. Pediatrics 1995;96:439-46.
5. Mustin HD, Holt VL, Connell FA. Adequacy of well-child care and immunizations in U.S. infants born in 1988. JAMA 1994;272:1111-5.
6. Centers for Disease Control and Prevention. Vaccination coverage by race/ethnicity and poverty level among children aged 19–35 months—United States, 1997. MMWR 1998;47:956-9.
7. Ortega AN, Stewart DCL, Dowshen SA, Katz SH. The impact of a pediatric medical home on immunization coverage. Clin Ped 2000;39:89-96.
8. Ehresmann KR, White KE, Hedberg CW, et al. A statewide survey of immunization rates in Minnesota school age children: implications for targeted assessment and prevention strategies. Pediatr Infect Dis 1998;17:711-6.
9. U.S. Department of Health and Human Services. Healthy People 2000: National Health Promotion and Disease Prevention Objectives. Washington, DC: Public Health Service, 1991.
10. Census of Population and Housing, 1990: Summary Tape File 3 on CD-ROM. Washington, DC: U.S. Census Bureau, 1992. Available at: http://venus.census.gov/cdrom/lookup.
11. Montgomery LE, Kiely JL, Pappas G. The effects of poverty, race, and family structure on U.S. children's health: data

from the NHIS, 1978 through 1980 and 1989 through 1991. Am J Public Health 1996;86:1401-5.
12. Centers for Disease Control and Prevention. Community indicators of health-related quality of life—United States, 1993-1997. MMWR 2000;49:281-5.
13. Waitzman NJ, Smith KR. Phantom of the area: poverty-area residence and mortality in the United States. Am J Public Health 1998;88:973-6.
14. Gornick ME, Eggers PW, Reilly TW, et al. Effects of race and income on mortality and use of services among Medicare beneficiaries. N Engl J Med 1996;335: 791-9.
15. Lieu TA, Black SB, Ray P, Chellino M, Shinefield HR, Adler NE. Risk factors for delayed immunization among children in an HMO. Am J Public Health 1994; 84:1621-5.
16. Kenyon TA, Matuck MA, Stroh G. Persistent low immunization coverage among inner-city preschool children despite access to free vaccine. Pediatrics 1998; 101:612-6.
17. Lannon C, Brack V, Stuart J, et al. What mothers say about why poor children fall behind on immunizations: a summary of focus groups in North Carolina. Arch Pediatr Adolesc Med 1995;149:1070-5.
18. Prislin R, Dyer JA, Blakely CH, Johnson CD. Immunization status and socio-demographic characteristics: the mediating role of beliefs, attitudes, and perceived control. Am J Public Health 1998;88: 1821-6.
19. Williams DR, Lavizzo-Mourey R, Warren RC. The concept of race and health status in America. Public Health Reports 1994;109:26-41.
20. Massoudi MS, Walsh J, Stockley S, et al. Assessing immunization performance of private practitioners in Maine: impact of the assessment, feedback, incentives, and exchange strategy. Pediatrics 1999; 103:1218-23.
21. Centers for Disease Control and Prevention. Vaccine-preventable diseases: improving vaccination coverage in children, adolescents, and adults. A report on recommendations of the Task Force on Community Preventive Services. MMWR 1999;48(RR-8):1-15.
22. National Vaccine Advisory Committee. Strategies to sustain success in childhood immunizations. JAMA 1999;282:363-70.
23. Birkhead GS, LeBaron CW, Parson P, et al. The immunization of children enrolled in the special supplemental food program for Women, Infants and Children (WIC): the impact of different strategies. JAMA 1995;274:312-6.
24. Centers for Disease Control and Prevention. Effectiveness of a seventh-grade school entry vaccination requirement—statewide and Orange County, Florida, 1997-1998. MMWR 1998;47:711-5.
25. Rodewald LE, Szilagyi PG, Holl J, Shone LR, Zwanziger J, Raubertas RF. Health insurance for low-income working families: effect on the provision of immunizations to preschool-age children. Arch Pediatr Adolesc Med 1997;151: 798-803.
26. Minnesota Department of Health. Healthy Minnesotans: public health improvement goals, 2004. St. Paul: MDH Division of Community Health Services, 1998:163-82.

**CentraCare Clinic** *is a progressive and growing 122-physician multi-specialty clinic with nine Central Minnesota sites. Our clinics offer a comprehensive income and benefits package and are conveniently located between the Twin Cities and prime Minnesota lakes area. Central Minnesota offers an outstanding lifestyle with quality schools and abundant recreational activities. CentraCare Clinic is currently recruiting for the following locations:*

**CENTRACARE Clinic**
Women & Children's Center

***Join** an exceptional 23-physician clinic specializing in pediatrics and obstetrics/gynecology which currently has openings in the following specialties:*

**Allergy**
**Reproductive Endocrinologist**

**CENTRACARE Clinic**
Heartland

***Join** an experienced 6-physician clinic which currently has an opening in:*

**Family Practice Physician who practices Obstetrics**

**CENTRACARE Clinic**
Melrose

***Join** 6 family practice physicians who practice obstetrics in a rural clinic setting:*

**Family Practice Physician who practices Obstetrics**

**CENTRACARE Clinic**
River Campus

***Join** an exceptional 65-physician specialty clinic which currently has openings in the following specialties:*

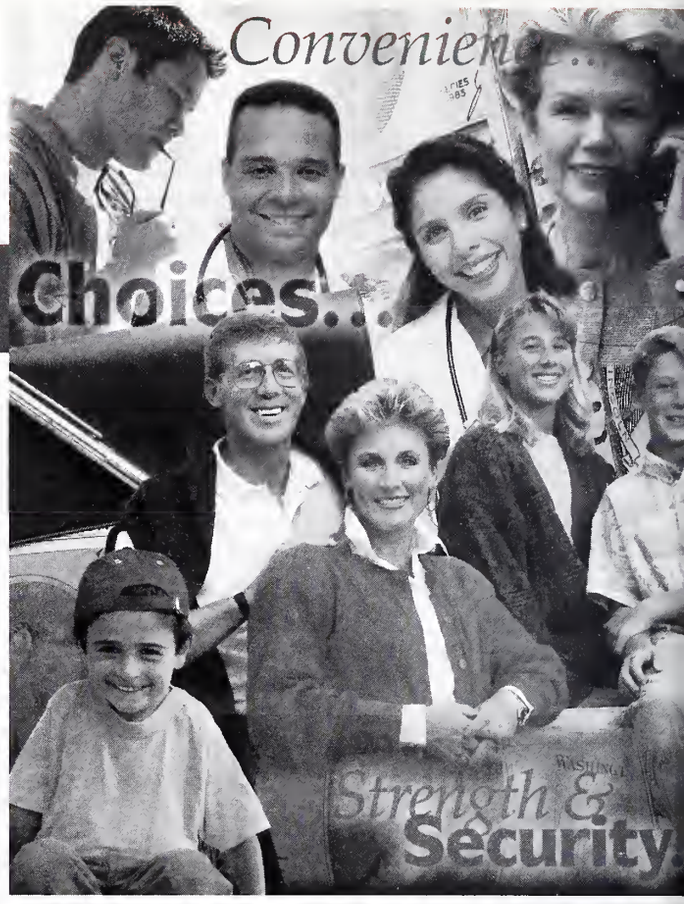
**Allergy**
**Internal Medicine**
**Dermatology**
**Neurology**
**Gastroenterology**
**Pediatric Critical Care**
**Infectious Disease**
**Rheumatology**
**Cardiology**

*For more information, please contact:*

*Karla Donlin*
*donlink@centracare.com*
*Kristine Cunningham*
*cunninghamk@centracare.com*
*Physician Recruiters*
*1406 Sixth Avenue North*
*St. Cloud, MN 56303*
***1-800-835-6652***
*www.centracare.com*

**CENTRACARE Clinic**

# Wouldn't you like a **LOW-COST** employee benefit?




**MMBR** has partnered with **IBM Mid America Employees Federal Credit Union** — one of the largest and most successful credit unions in the state — specifically for the benefit of your medical practice.

- IBM Mid America is driven by a mission of providing **high-quality service** — 98% of its members say the credit union either meets or exceeds their service expectations.*
- Some experts estimate that credit union membership can save the average American family **$400 to $500** a year.
- The credit union emphasizes **high savings rates, low loan rates,** minimal fees and convenient access through a combination of branch offices and state-of-the-art technology.

*To find out how the valuable benefit of credit union membership can be offered to your employees at **no cost** to you, call MMBR at **1-800-298-6627** or **612/623-2860.***

## Are you interested in an employee benefit that:

- Adds **real value** to your benefits package?
- Can help increase **employee retention?**
- Requires **no investment** of your administrative time?
- Is **easy to implement,** with no hassle?

* 1999 Service Quality Survey

IBM **MID AMERICA** EMPLOYEES FEDERAL CREDIT UNION

**MMBR**

MINNESOTA MEDICAL BUSINESS RESOURCES
OWNED BY MMA & HMS

**www.mnmed.org/mmbr • e-mail: mmbr@mnmed.org**

# Air Bags

## *An Imperfect and Incomplete Solution*

*New technology has helped reduce injuries from motor vehicle crashes, but there's still room for improvement.*

Jon S. Roesler, M.S., and Mark R. Kinde, M.P.H.

***Editor's note:*** *Motor vehicle crashes are the leading cause of death in children. What are you doing to help prevent those deaths? You ask your adult patients about smoking; you check their blood lipids. But do you also ask every adult patient who is also a parent or caregiver about the use of seat belts and safety seats with children? Do you know the proper placement of a child safety seat? And do you know where a parent can find reliable advice about which car safety seats to buy? Read on. The following article and sidebar put air bags in perspective and talk about the laws and recommendations for using safety restraints with children. If you don't already include this important topic in your preventive care agenda for all patients, be sure to add it.*

—Barbara Yawn, M.D., M.Sc.
Series Editor

Injury is the leading cause of death in most age groups, yet injury prevention has been neglected by the public health and medical communities. There is still much that can be done to reduce the number and severity of injuries. Physicians in particular can have a major impact through effective injury-control strategies, including treatment, education, screening, hazard identification, research, advocacy, and policymaking. Using all these approaches, physicians can play a truly effective role in reducing the burden of injuries for their patients.[1]

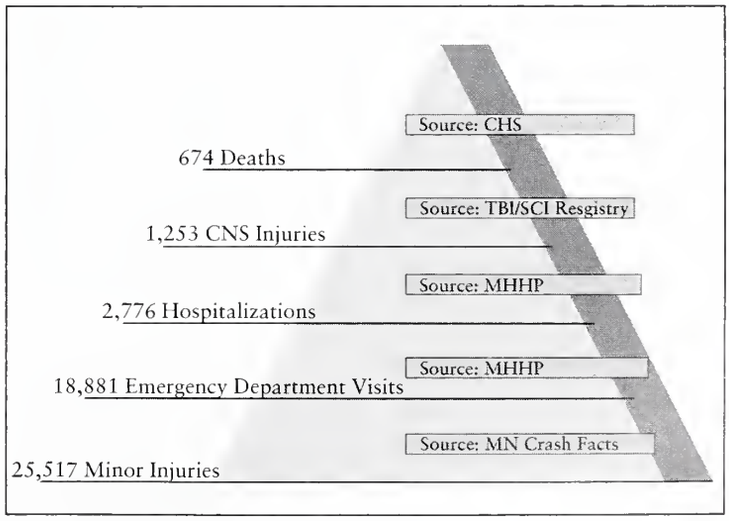
Motor vehicles have become our primary means of transportation and provide us great freedom of travel. But our dependence on motor vehicles has resulted in a high frequency of motor vehicle crashes (MVC) and associated severe injuries. MVCs impose an enormous burden on our society in causing death, disability, and suffering. Motor vehicles are the leading cause of death for Minnesotans aged 5–24 years.[2] But people of all ages are affected: MVC injuries sustained by occupants are the leading cause of injury death for Minnesotans 1–74 years of age.[3] Motor vehicles are notable disablers: Injuries to motor vehicle occupants are the leading cause of traumatic spinal cord injury and death, and the second leading cause of traumatic brain injury and death in Minnesota.[4] Furthermore, motor vehicles contribute heavily to morbidity: Injuries sustained by motor vehicle occupants are the second leading cause of trauma-related hospitalizations, and the fourth leading cause of injury treated in the emergency department[5] (see Figure below). Clearly, the prevention of injuries to automobile occupants is a significant public health issue.

In response to the problem of MVCs, modern technology has produced a variety of safety and health features, devices, and designs intended for better occupant protection in high-speed vehicles. Reduction of motor vehicle occupant injuries requires the combined approaches of engineering, enforcement, education, and environmental change (both physical and social). Air bags are part of this integrated approach.

### *Discussion*

The rationale for equipping passenger vehicles with air bags was to limit head and chest injuries by introducing a mechanical cushion between occupants and the hard interior surfaces of the vehicle. Air bags are designed to protect occupants in frontal impact crashes, which ac-

**Figure—The Human Cost of MVCs**



# Keeping Kids Safe During the Drive

*It takes more than fastening a buckle to ensure a safe ride for young passengers. Physicians can help their patients learn the law and the proper methods for securing children in motor vehicles.*

By Kelly L.P. Sabo

Parents worry about everything. They worry about their children talking to strangers. They worry about them crossing the street alone or swallowing poison. They worry about the effects of rap music, MTV, and R-rated movies. But of all the childhood dangers in the United States, injury from motor vehicle crashes—the leading cause of childhood death—may be the one worry parents can easily do something about: It only takes three minutes to properly secure a child in a car seat for a safe ride. Physicians can help make car rides safer by reminding their patients with children to take the necessary precautions.

## *The Law*

Minnesota law requires all children under age 4 to be properly restrained in a child safety seat that meets federal standards. In addition, children under age 11 must use a safety belt no matter where they sit in the car. And front-seat passengers as well as the driver also must use a safety belt. Yet in 1998, 39 passengers under age 15 were killed and 264 severely injured in motor vehicle crashes in Minnesota. Of the 279 children killed or severely injured, only 19% were known to be using safety restraints.

A recent observational study sponsored by the Minnesota Department of Public Safety's Office of Traffic Safety revealed that 12% of infants (less than 1 year old), 22% of young children (1–3 years), and 52% of older children (4–10 years) in Minnesota are riding in motor vehicles completely unrestrained.

## *Rules of the Road for Child Safety*

The first "must" for new parents is to ensure that their infant rides in a rear-facing safety car seat until the child is age 1 *and* weighs 20 pounds. Infants are safest when they ride facing the rear of a vehicle because the back of the safety seat supports the child's back, neck, and head in a crash. Infants that weigh more than 20 pounds but are less than 1 year old should ride in a rear-facing seat appropriate for their weight.

Once children turn 1 and weigh more than 20 pounds, they can ride in a forward-facing convertible seat or child-only seat. The manufacturer's instructions should always be checked to determine the correct positioning of the harness straps. This type of seats can be used until the child outgrows it, usually at age 4.

Child passenger safety experts stress the need for booster seats after a child outgrows a harness-type safety seat. "Parents need to buckle children from infancy to adulthood, but often once a child outgrows a safety seat, adults think children are old enough to wear an adult safety belt," says Patti Klicka, administrator of Minnesota's Child Passenger Safety Pro-

count for more than half of all motor vehicle passenger deaths. But air bags are only supplements to safety belts, not substitutes for them. During precrash braking, an unrestrained passenger may be thrown against the dashboard area, in immediate proximity to an air bag. Since air bags inflate in less than 1/25th second, faster than the blink of an eye, drivers and passengers who are unrestrained or are wearing only the lap portion of their safety belt can be seriously or even fatally injured by deploying air bags.

Despite their potential to save lives, air bags are controversial, particularly with regard to unrestrained occupants, children, small women, and out-of-position occupants. However, the introduction of air bags between 1986 and October 1, 1999, is estimated to have saved 4,758 lives nationwide, while 146 deaths are reported to have resulted from air bag deployment.[6] Two such deaths have occurred in Minnesota.[7] By comparison, it is estimated that in the United States, seat belts save 11,000 lives annually.[6] Deployment of air bags is also associated with other nonfatal injuries, including ocular, thorax, and upper limb injury.[8-11]

Although air bags and seat belts have reduced the overall number of MVC deaths, neither provides total immunity from injury. In Minnesota, of the 2,427 cases of traumatic brain and/or spinal cord injury (TBI/SCI) to motor vehicle occupants, for whom air bag use was documented in the medical record, 141 (5.8%) were associated with a deployed air bag. By comparison, of 4,121 TBI/SCI cases in which seat belt use was docu-

gram. "In fact, children should be riding in a booster seat until at least 8 years of age, to allow the safety belt to be positioned correctly on the child's hips and across the chest and collarbone." Klicka stresses the importance of booster seats because a poor-fitting adult safety belt can result in severe injury to a child.

Children are ready for an adult safety belt when they can sit with their back against the vehicle seat and their knees bent comfortably and completely over the vehicle seat edge without slouching. This requirement is usually reached when kids weigh more than 80 pounds and are 8 years old.

Children younger than 13 should continue to ride buckled up in the back seat, especially in motor vehicles equipped with air bags. To be effective in protecting adults, air bags must deploy from the dashboard fast—at speeds up to 200 miles per hour. When used with a properly fitting lap/shoulder safety belt, an air bag is highly effective in protecting teenagers and adults in a crash, but it can be deadly for young children sitting in the front seat.

### *Child Passenger Safety Clinics*

When it comes to protecting children from injury in motor vehicle crashes, the issue isn't just buckling them in, but buckling them in properly. "Eighty-five percent of child restraints are being used incorrectly [in Minnesota], a figure not unlike national statistics," says Klicka. "The most common errors we find at child safety clinics are parents using the incorrect harness slot, the harness not being snug enough, the vehicle safety belt not being tight enough, and parents using the wrong restraint for the child's age and size."

Several child passenger safety clinics are scheduled throughout the year to help parents ensure they are buckling in their children correctly. Clinic dates and locations can be found on the Minnesota Department of Public Safety's Web site at www.buckleupkids.state.mn.us or by calling the Minnesota Child Passenger Safety Program at 800/818-9296. The clinics are free of charge.

The Department of Public Safety, along with Health Fair 11, Cub Foods Pharmacy, and UCare, has hosted child passenger safety clinics for the past two years (most recently in April). For more information about this event, contact Patti Klicka at 651/215-9093 in the Office of Traffic Safety.

### *A Safety Reminder for Physicians to Give Parents and Caregivers*

The leading cause of death and disability among children is motor vehicle crashes. Following two simple rules can make motor vehicle travel much safer for children:

- Children under age 1 should *never* ride in a car facing forward, regardless of weight.
- Children should ride in a safety seat until they are at least 8 years old.

*Kelly Sabo is a public information officer in the Minnesota Department of Public Safety, Office of Communications. She is also a nationally certified child passenger safety technician.*

mented, 1,560 (38%) were associated with seat belt use.[4] While air bag availability is not known, it is known that seat belt use in Minnesota is about 65% to 70%. Seat belt users are underrepresented in Minnesota's TBI/SCI data, indicating a protective benefit nonetheless.

Clearly, while air bags provide substantial benefit, they also exact a real cost in human life. However, steps have been taken to maximize the benefit and minimize the hazard of air bags. For example, the National Highway Traffic Safety Administration has established an air bag policy that permits certain segments of the population to install on-off switches for their air bags, instead of allowing permanent deactivation. Under this policy the installation of on-off switches is available when, for example, a physician determines that because of a patient's medical condition, the air bag poses a special risk that outweighs the risk of hitting the head, neck, or chest in a crash if the air bag is turned off.[12]

In addition, automobile manufacturers have recently begun including side-impact air bags on some models. These air bags can provide significant supplemental safety benefits to adults in side-impact crashes. However, children who are seated close to a side air bag may be at risk of serious or fatal injury, especially if the child's head, neck, or chest is near the air bag when it deploys.

## *Recommendations*

IMMEDIATE ACTION STEPS

- Infants should never ride in the front seat of a

vehicle with an activated passenger air bag.

• Children aged 12 and under should always be properly restrained in a child safety seat or safety belt and ride in the back seat. Even if the motor vehicle has no passenger air bag, the safest place for infants and children is properly secured and buckled up in the back seat (see sidebar, page 58).

• Safety belts, both lap and shoulder, should be worn at all times, regardless of the air bag status of the motor vehicle.

### Intermediate action steps

• Physicians should be able to recognize and respond to the new spectrum of injuries associated with air bags.

• For any MVC victim, emergency medical staff should document in the medical record air bag deployment.

• Physicians and hospitals should participate in research and public health surveillance activities concerning air bags.

### Longer-term action steps

• The next generation of air bag technologies should be provided in all new cars, including side-impact and adaptive ("smart") air bags to cushion and protect occupants of different sizes, belted and unbelted, and to minimize risks to infants, children, and other occupants.

• Research and injury surveillance data must be increasingly analyzed and promptly disseminated to guide practice and policy regarding air bags.

It is essential that physicians who see children in their practice be knowledgeable about seat belts and car seats. Finally, physicians should routinely ask questions about air bag and seat belt use in their preventive care discussions with patients. MM

*Jon Roesler is a senior epidemiologist and Mark Kinde is unit director of Injury and Violence Prevention in the Minnesota Department of Health.*

### REFERENCES

1. Smith GS. The physician's role in injury prevention: beyond the U.S. Preventive Services Task Force report. J Gen Intern Med 1990;5(Suppl 5):S67-73.
2. Minnesota Department of Health. Minnesota Center for Health Statistics. 1998 Minnesota Health Statistics. St. Paul: Minnesota Department of Health, January 2000.
3. Minnesota Department of Health, Injury and Violence Prevention Unit. Unpublished data. St. Paul: Minnesota Department of Health, June 23, 2000.
4. Minnesota Department of Health, Injury and Violence Prevention Unit. Traumatic Brain and Spinal Cord Injury in Minnesota, 1993-1997. St. Paul: Minnesota Department of Health, June 23, 2000.
5. Minnesota Department of Health, Injury and Violence Prevention Unit. Nonfatal injury in Minnesota, 1998. St. Paul: Minnesota Department of Health, June 23, 2000.
6. National Highway Traffic Safety Administration. NHTSA Safety Fact Sheet, November 2, 1999. http://www.nhtsa.gov/airbags/factsheets/numbers.html.
7. National Safety Council. NSC, air bag fatalities: state-by-state breakdown, June 20, 2000. http://www.nsc.org/partners/state.htm.
8. Duma SM, Crandall JR. Eye injuries from airbags with seamless module covers. J Trauma 2000;48(4):786-9
9. Sharma OP, Mousett XR. Review of tricuspid valve injury after airbag deployment. J Trauma 2000;48(1)152-6.
10. Mohamed AA, Banerjee A. Patterns of injury associated with automobile airbag use. Postgrad Med J 1998;74(874):455-8.
11. Huff GF, Bagwell SP, Bachman D. Airbag injuries in infants and children. Pediatrics 1998;102(1):e2.
12. Final report of the National Conference on Medical Indications for Air Bag Disconnection, conducted by the Ronald Reagan Institute of Emergency Medicine, Department of Emergency Medicine, and the National Crash Analysis Center. The George Washington University Medical Center, Washington, DC, July 16-18, 1997. This report is available online at http://www.nhtsa.gov/airbags.

**Emergency Medicine Opportunities**

**Emergency Practice Associates** provides quality emergency physician services. Our physicians work as independent contractors in a growth-oriented, physician-supported environment.

***full time opportunities***

| | |
|---|---|
| *GRAND RAPIDS, MN* | **Itasca Medical Center**<br>Medical Director and Staff Physician |
| *HIBBING, MN* | **University Medical Center–Mesabi**<br>Staff Physician |
| *LITTLE FALLS, MN* | **St. Gabriel's Hospital**<br>Medical Director and Staff Physician |
| *NEW ULM, MN* | **New Ulm Medical Center**<br>Medical Director and Staff Physician |

***part time opportunities***

| | |
|---|---|
| *AITKIN, MN* | **Riverwood Health Care Center** |
| *CROSBY, MN* | **Cuyuna Regional Medical Center** |
| *ST. PETER, MN* | **Community Hospital & Health Center** |

EMERGENCY PRACTICE ASSOCIATES
BOX 1260
WATERLOO, IA 50704
FAX: 319-236-3644

**Call the recruiting specialist today at 1-800-458-5003**
www.epamidwest.com

# Driving in the Sane Lane

*A psychiatrist advises uptight drivers on how to change their ways behind the wheel.*

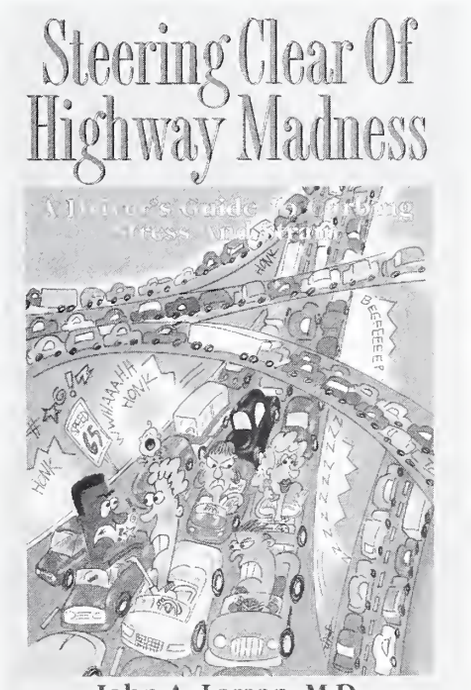
Reviewed by John Van Etta, M.D.

As the father of a teenage driver, I worry about bad drivers, including the types John Larson, M.D., describes in his easy-to-read "Steering Clear of Highway Madness: A Driver's Guide to Curbing Stress and Strain" (Book Partners, Inc., 1996). Larson, a Connecticut psychiatrist, has identified the speeder, the competitor, the aggressor, the narcissist, and the vigilante. Having driven 40,000 miles in the last two years as MMA president-elect and president, I recognize all five.

Recounting his father's desire to set record time in getting to a destination and accolades from relatives for making "good time," Larson asks whether it might have been better to have had a "good time" than to shave off five minutes. When Larson realized he was copying his father's driving behaviors, he feared teaching his children the same bad habits and decided to write a book analyzing safety and responsibility on the road.

Part of the problem, he says, is that Americans tend to view their cars as extensions of themselves. We want high-performance, top-speed vehicles with lots of power. And, he says, many drivers tend to assume those characteristics when they get behind the wheel.

Larson demonstrates through stories, examples, and clinical evaluations the emotional states that put us at risk behind the wheel. He offers vivid descriptions of behind-the-wheel anxiety, impatience, resentment, anger, and overt rage. Key chapters examine the five bad-driver types and offer ways to effectively alleviate the problems they create.



John A. Larson, M.D.

For readers who discover they need to adjust their own behind-the-wheel attitudes, Larson offers several tips to less stressful driving. He offers techniques that reinforce calmer driving habits, including listening to favorite music or books on tape, appreciating the surroundings, and having regard for other drivers.

"Steering Clear of Highway Madness" should be required reading for all drivers. It will help readers evaluate their own behind-the-wheel behavior, be better prepared to teach their children to drive, and react appropriately when others create dangerous situations on our roadways. MM

*John Van Etta is president of the Minnesota Medical Association and an internist at St. Mary's Duluth Clinic Medical Center.*

## *Related Books*

Drive to Survive! Curt Rich. Motorbooks International, 1999.

Peaceful Driver: Steering Clear of Road Rage; Allen Liles. Unity, 1999.

Road Rage to Road-Wise: This Book Can Save You or Someone You Love; John A. Larson, Carol Rodriguez. Forge, 1999.

Confessions of a Reformed Road Warrior; Matthew Douglas McGinley. A Class Act, 1999.

Safe Young Drivers: A Guide for Parents and Teens; Phil Berardeli. Nautilus Communications Inc., 1996.




## *Convenient, money-saving services just a click away at*

# www.mnmed.org/mmbr

*MMBR is your One-Stop Shop for value and convenience.*
*We invite you to visit the MMA/MMBR web site where you can:*

- Explore how you can offer credit union membership to your employees.
- Shop and compare the best term life insurance rates.
- Find information on work-site financial educational programs.
- Find information on retirement plan programs for your practice.
- Obtain group purchasing program benefits.
- Find specialized medical transportation services.
- Shop for autos, SUVs and vans for purchase or lease.
- Save up to 75% off frequently ordered office products.
- And much more!

*Contact us by e-mail at mmbr@mnmed.org*
*or call us at 612-623-2860 or 800-298-6627*

**MMBR**

MINNESOTA MEDICAL BUSINESS RESOURCES
OWNED BY
MMA & HMS

# *A Calendar of Continuing Medical Education Courses*

*Provided as a service of the MMA Committee on Accreditation and CME.* For assistance with scheduling meetings or for information on future medical meetings and CME courses, please contact the MMA office: 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; 612/378-1875. For a complete listing of our calendar, visit the MMA Web site at www.mnmed.org. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

## AUGUST 2000

Aug. 6-8 **Fifth Annual Mountain Course—Success with Failure: New Strategies for the Evaluation and Treatment of Congestive Heart Failure** Mayo Foundation; Chateau Whistler, Whistler, B.C., Canada. CONTACT: Registrars, Mayo School of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Aug. 18-19 **Inpatient Medicine: 1st Annual Midwest Regional (NAIP) Meeting** Mayo Foundation; Mayo Foundation, Rochester, MN. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Aug. 20-26 **Medical Ethics in the New Millennium** HealthEast Care System with the Minnesota Guild of the Catholic Medical Association; Hotel Giotto, Assisi, Italy. CONTACT: Annette Anderson, 1700 University Avenue West, St. Paul, MN 55104; 651/232-5104.

Aug. 21-25 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

## SEPTEMBER 2000

Sept. 5 **Endorectal Ultrasonography** Division of Colon and Rectal Surgery—University of Minnesota; Midway Health Service, St. Paul, MN. CONTACT: Continuing Medical Education, University of Minnesota, Suite 107, 615 Washington Avenue SE, Minneapolis, MN 55414; 612/626-7600, 800/776-8636 or fax 612/626-7766.

Sept. 6 **Pelvic Floor Workshop: Testing, Patient Simulation, and Evaluation** Division of Colon and Rectal Surgery—University of Minnesota; Midway Health Service, St. Paul, MN. CONTACT: Continuing Medical Education, University of Minnesota, Suite 107, 615 Washington Avenue SE, Minneapolis, MN 55414; 612/626-7600, 800/776-8636 or fax 612/626-7766.

Sept. 7-9 **Principles of Colon and Rectal Surgery: Principles and Practice 2000** Division of Colon and Rectal Surgery—University of Minnesota; Hilton, Minneapolis, MN. CONTACT: Continuing Medical Education, University of Minnesota, Suite 107, 615 Washington Avenue SE, Minneapolis, MN 55414; 612/626-7600, 800/776-8636 or fax 612/626-7766.

Sept. 7-9 **The 2nd Mayo Vascular Symposium** Mayo Clinic, North American Chapter of the International Union on Angiology, American Venous Forum; Mayo Civic Center, Rochester, MN. CONTACT: Registrars, Mayo Foundation, Section of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Sept. 11-15 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Sept. 14-16 **Practical Surgical Pathology** Mayo Foundation; Leighton Auditorium, Siebens Education Building, Mayo Clinic, Rochester, MN. CONTACT: Registrars, Mayo School of Continuing Medical Education, Mayo Clinic, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Sept. 15 **Screening Flexible Sigmoidoscopy** St. Mary's/Duluth Clinic Health System; St. Mary's Medical Center, Duluth, MN. CONTACT: Diane Torvick, St. Mary's/Duluth Clinic Health System, Education and Research, 400 East Third Street, Duluth, MN 55805; 218/786-3838.

Sept. 21-22 **10th Annual Practical Pediatrics for the Primary Care Physician—Focus Areas: Genetics, Infectious Disease, Nephrology, and Neurology** Children's Hospitals and Clinics; Children's/United Heart and Lung Conference Center, St. Paul, MN. CONTACT: Betsy Julius, Medical Education, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/813-5884.

Sept. 22-23 **Mayo Clinic Update in Hepatology and Liver Transplantation** Mayo Foundation; Saint Paul Hotel, St. Paul, MN. CONTACT: Registrars, Mayo School of Continuing Medical Education, Mayo Clinic, 200 First Street SW, Rochester, MN 55905; 800/323-2688 or cme@mayo.edu.

Sept. 28-29 **Obstetrics and Gynecology Update** Institute for Research and Education; Naegele Auditorium, 7th Floor, Park Nicollet Clinic, 3800 Park Nicollet Boulevard, St. Louis Park, MN. CONTACT: Mary White, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 952/993-3531, e-mail: whitemj@hsmnet.com.

Sept. 28-29 **Strategies in Primary Care** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Marilyn Horstman, HealthPartners, Continuing Medical Education, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.

## OCTOBER 2000

Oct. 2-6 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Oct. 3-4 **Diabetes Conference** St. Mary's/Duluth Clinic Health System; Duluth Entertainment Convention Center, Duluth, MN. CONTACT: Catherine Koski, SMDC, Education & Research, 400 East Third Street, Duluth, MN 55805; 218/786-3854.

Oct. 7-8 **Clinical Autonomic Quantitation Workshop** Mayo Foundation; Mayo Clinic, Rochester, MN. CONTACT: Registrars, Mayo School of Continuing Medical Education, Mayo Clinic, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Oct. 13 **Dermatology Update** Institute for Research and Education; Naegele Auditorium, St. Louis Park, MN. CONTACT: Mary White, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 952/993-3531, e-mail: whitemj@hsmnet.com.

Oct. 27-28 **Thyroplasty: Theory and Practice** Minnesota Medical Association with Mayo Clinic Department of Otorhinolaryngology; Mayo Clinic, Rochester, MN. CONTACT: Barbara McLeod, Matrix Meetings, Inc., P.O. Box 1026, Rochester, MN 55905-1026; 507/288-5620.

Oct. 27-28 **Orthopedic Update** Institute for Research and Education; Radisson Hotel and Conference Center, Plymouth, MN. CONTACT: Mary White, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 952/993-3531, e-mail: whitemj@hsmnet.com.

## NOVEMBER 2000

Nov. 2 **Geriatric Care for the Primary Care Physician** Mayo Foundation; Leighton Auditorium, Siebens Education Building, Mayo Foundation, Rochester, MN. CONTACT: Registrars, Mayo School of Continuing Medical Education, Mayo Clinic, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Nov. 3 **Spiritual Care Research: Applications to Practice** Mayo Continuing Nursing Education; Mayo Clinic, Rochester, MN. CONTACT: Mayo Continuing Nursing Education, Eisenberg S-41, 200 First Street SW, Rochester, MN 55905; 800/545-0357.

Nov. 3 **Women's Health: New Information for a New Century** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Sharon Kopp, HealthPartners-IME, 640 Jackson Street, St. Paul, MN 55101; 651/291-5536.


Picture your future with ACMC...
We think you'll fit right in!

ACMC is a 100+ multi-specialty group providing primary and secondary care in over 23 specialties in a network of 10 clinics in Southwestern and West Central Minnesota.

ACMC offers a secure practice among a well-established and respected physician owned group with a very competitive financial and benefits package.

Positions now available for BE/BC physicians in:

Benson: *Family Practice*

Litchfield: *Family Practice*

Marshall: *Family Practice, Internal Medicine, OB/Gyn*

Redwood Falls: *Family Practice, Internal Medicine*

Willmar: *Family Practice, Internal Medicine, Oncology, Orthopaedic Surgery, Gastroenterology, Anesthesia, Urology*

Please contact:
Kari Bredberg, Physician Recruitment
(320) 231-6366 • karib@acmc.com
Affiliated Community Medical Centers
101 Willmar Avenue SW • Willmar, MN 56201
www.acmc.com

Affiliated COMMUNITY Medical Centers, P.A.



80 years and Still Growing.

*We're looking for BC/BE physicians for the following positions:*

**Internal Medicine/Family Practice**—We have multiple opportunities available in our internal medicine department and family practice departments at the main clinic in Mankato. The Mankato Clinic is a multi-specialty group practice with 75+ providers and a service area population of over 250,000. Our scenic riverside community has big city amenities, services, shopping and restaurants all without the traffic hassles.

**Radiology**—Exceptional opportunity to join our Radiology Department. Brand new, state-of-the-art volume acquisition multi-detector, spiral CT scanner on line in March necessitates expanding this well established department. This opportunity also includes reading MRI from the region's newest open MRI. Desirable call schedule provides time to enjoy life in this scenic river valley community.

We offer a guaranteed first year salary with incentive pay plan. Our full range of benefits includes a generous retirement plan and liberal time-off policy.

**For more information call Dr. Byron C. McGregor, Medical Director at 507-389-8548 or Dennis Davito, Director Physician Recruitment, 507-389-8654 or send CV.**

Mankato Clinic
1230 East Main Street
Mankato, MN 56002-8674
FAX: 507-388-3401

Nov. 3 **The First 24 Hours** Institute for Research and Education; Naegele Auditorium, St. Louis Park, MN. CONTACT: Mary White, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 952/993-3531, e-mail: whitemj@hsmnet.com.

Nov. 6-10 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Nov. 9-10 **Critical Care 2000** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Marilyn Horstman, HealthPartners, Continuing Medical Education, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.

Nov. 17-18 **Primary Care Ortho** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Marilyn Horstman, HealthPartners-IME, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.

Nov. 17-18 **14th Annual Primary Care Update** Institute for Research and Education; Radisson Hotel and Conference Center, Plymouth, MN. CONTACT: Mary White, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 952/993-3531, e-mail: whitemj@hsmnet.com.

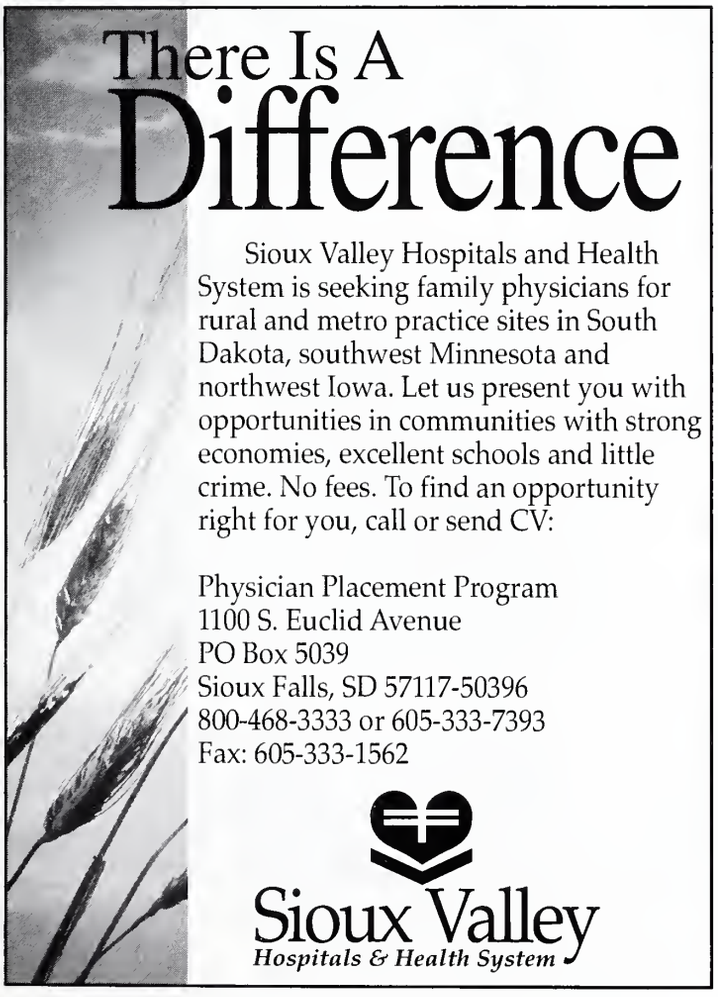
DECEMBER 2000

Dec. 4-8 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Dec. 7-8 **22nd Annual Cardiovascular Conference** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Marilyn Horstman, HealthPartners, Continuing Medical Education, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.

FEBRUARY 2001

Feb. 5-9 **Mayo Foundation Presents: Gastroenterology and Hepatology for the 21st Century** Mayo Foundation; Hapuna Beach Prince Hotel, Mauna Kea Resort, Kohala Coast, Big Island of Hawaii. CONTACT: Registrars, Mayo Foundation, Mayo School of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.




HealthPartners®
*Institute for Medical Education*

CME

CONTINUING PROFESSIONAL DEVELOPMENT 2000 OFFERINGS

Cardiology Today ..... Every Third Tuesday
Strategies in Primary Care Medicine ..... September 28 – 29, 2000
Women's Health: New Information for a New Century ..... November 3, 2000
Pulmonary and Critical Care Medicine ..... November 9 – 10, 2000
Orthopedics for Primary Care ..... November 17 – 18, 2000
22nd Annual Cardiovascular Conference ..... December 7 – 8, 2000

FOR FURTHER INFORMATION CONTACT:
*Institute for Medical Education*
*Continuing Professional Development*
*640 Jackson Street • St. Paul, MN 55101*
*Phone 651-221-3992 • Fax 651-292-4773*
*Web site: IME.HealthPartners.com*

The best of both — A place to practice. A place to live.

Owatonna Clinic offers physicians local practice autonomy and access to Mayo Clinic's expertise in clinical medicine, education and research.

Opportunities to join our team are available in:

- Dermatology
- Family Medicine
- Internal Medicine
- Obstetrics and Gynecology
- Orthopedic Surgery

To learn more about our wonderful city and clinic, visit us at owtclinic.org

**Contact David Berg at 507-455-4441 or berg.david2@mayo.edu**

Owatonna Clinic
*Mayo Health System*

*Lakeview*
MEDICAL CLINIC, PA

Lakeview Medical Clinic P.A.

Lakeview Medical Clinic, PA, an independent, physician owned clinic with two locations in Central Minnesota is seeking BE/BC physician in: **Family Practice** and **General Internal Medicine**

Lakeview Medical CLinic, PA is a six practitioner group that has experienced great growth in the past several years. These positions offer a competitive first year salary guarantee and benefits package, plus signing bonus'. Come grow with us.

***For more information contact:***
**Phillip Malley, Administrator**
**Lakeview Medical Clinic, PA**
**433 Elm St. N., Sauk Centre, MN 56378**
**(320) 352-6591**

# *Physician Opportunities and Miscellaneous Listings*

***Classified rates are $2.50 a word (300-word maximum). Minimum monthly charge is $50; with box number $5 additional. Ads will not be accepted by phone.***

- Placement of ads must be made six weeks before the date of publication, e.g., August 15 for October ad. Please send ad requests to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; or by fax, 612/378-3875; or e-mail, mm@mnmed.org.
- The publisher reserves the right to decline or withdraw advertisements. The publisher is not responsible for clerical or typographical errors and is not permitted to divulge the identity of advertisers who have replies sent to box numbers.
- Cancellation of ads must be made by the first of the month preceding month of issue.

---

**Quello Clinic, Ltd.:** Well-established, south suburban, physician-owned group seeking part/full-time OB/Gyn and family practice physicians to work in our regular day clinic. We are also seeking physicians to work at our urgent care sites. Contact medical director at 952/985-8931, or write Quello Clinic, Ltd., 7801 East Bush Lake Road, Suite 300, Bloomington, MN 55439. (6/00-R)

---

**Fairview Health Services:** Practice opportunities in urban, suburban, and semi-rural locations. Moonlighting and part-time urgent care opportunities also available. Please contact Fairview Physician Recruitment and Retention at 612/672-2288, 800/842-6469, fax: 612/672-2986, e-mail: recruit1@fairview.org or visit our Web site at www.fairview.org/recruitment. (6/00-R)

---

**Olmsted Medical Center** is seeking BC/BE physicians in family medicine, emergency medicine, and dermatology to join our 75-physician multispecialty group. Great opportunity for well-trained physicians to join a family-friendly group in a dynamic, progressive practice. In addition to its main office and hospital in Rochester, the Olmsted Medical Center system includes 11 branch office locations in southeastern Minnesota. Excellent salary and benefits, including health benefits, malpractice, spending accounts, educational funds, profit sharing, 401(k)/403(b), and relocation assistance. Send CV to Lois Till-Tarara, Olmsted Medical Center, 1650 Fourth Street SE, Rochester, MN 55904; 507/287-2430. Fax: 507/285-8973. (*3/99-R)

---

**Falls Medical Search Seeks Physicians** for practice opportunities locally and nationally. To explore new practice options confidentially, send your CV or call Pat Falls, Falls Medical Search, 34 Forest Dale Road, Minneapolis, MN 55410; 612/922-0207 or 800/383-8916. (*5/92-R)

---

**MDsearch** assists medical groups and hospitals in their recruiting efforts. For confidential information on opportunities in the Upper Midwest, send CV and/or call collect Mary Jo Cordes, MDsearch, P.O. Box 21507, St. Paul, MN 55121; 651/454-7291. Fax: 651/454-7277. (2/93-R)

---

**The Minnesota Recruiter** works with Minnesota practices to staff their physician opportunities, and with physicians seeking new opportunities. Through our nationwide affiliate offices, we can provide attractive opportunities in nearly all parts of the country. Access these opportunities on-line at www.mnrecruiter.com or contact us confidentially at 800/967-2711, or by fax at 320/587-7252. (6-1/01)

---

**Weber Law Office:** Focusing on the professional and personal legal needs of the health professional. Former attorney for the Board of Medical Practice. Over six years with the Minnesota Attorney General's Office. Committed to the best legal outcome possible through diligence and resourcefulness. 612/296-8080; www.weber-law.com. (6-12/00)

---

**Brainerd Medical Center, P.A.**
**2024 South Sixth Street, Brainerd, MN 56401**
**218-828-7105 • www.brainerdclinic.com**

## PEDIATRIC OPPORTUNITY

**A Pediatric opportunity exists at Brainerd Medical Center. Would you like to live in a premiere vacation area in a community that will meet any family need?**

If so, the Brainerd area is just for you! Look at the possibilities our multi-specialty clinic has to offer:

- No primary call
- Four day work week
- General Pediatric practice plus
- Enlarging consultative practice
- Active teaching program for med students and residents
- Excellent Family Practitioners
- Great Nurse Practitioners
- Superior Urgent Care and ER coverage
- Private Catholic hospital will exceed your expectations
- Above average income opportunity

To obtain more infromation about this Pediatric opportunity, please feel free to contact Pediatrician, Dr. Michael V. Severson, or Curt Nielsen, Clinic Administrator at the above address or phone number.

ASPEN
Medical Group

Aspen Medical Group is a 160+ provider multi-specialty group with 9 clinics located throughout the Minneapolis / St. Paul metro area. We are currently seeking BE/BC physicians for the following specialties:

*Dermatology*
*Hospitalist*
*Internal Medicine*
*Urgent Care*

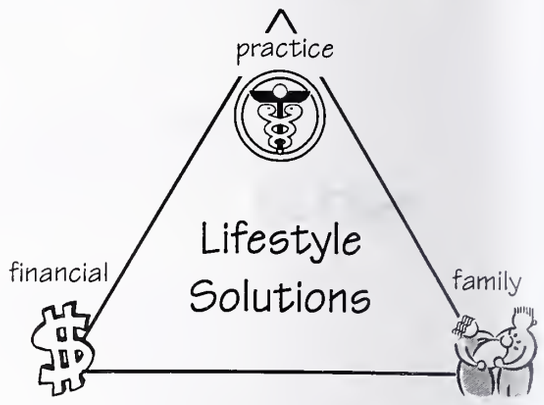
Aspen Medical Group is governed by its own physicians and health care providers. Guaranteed base salary available for the first two years. Competitive benefits package.

For further information, please contact:

Nancy Borgstrom, Provider Services Coordinator
1020 Bandana Boulevard West
Saint Paul, MN 55108
phone 651-641-7081 • fax 651-641-7151
e-mail nborgstr@aspenmed.org

EOE. No J-1 opportunities available.

P R O V I D I N G




SOLUTIONS

• Emergency Medicine • Locum Tenens

ACUTE CARE, INC.

For more information, please call
**800.729.7813 or 515.964.2772**
e-mail address: jeffw@acutecare.com
home page: http://www.acutecare.com

Park Nicollet Clinic
HealthSystem Minnesota

**Family Practice**

**Internal Medicine**

Park Nicollet Clinic is seeking BE/BC Family Practice Physicians and General Internists to join our multi-specialty group in western and southern suburban Minneapolis.

Award-winning Park Nicollet Clinic is one of the largest multi-specialty clinics in the country with nearly 500 physicians and 270 clinical professionals practicing in 45 medical subspecialties. The clinic is nationally and locally recognized for its care improvement initiatives.

Park Nicollet Clinic offers a variety of practice settings ranging from small primary care settings to specialty care in larger sites. Wherever a physician practices, they have the collaboration of their colleagues in providing the finest care.

For immediate consideration, please fax, mail, or email your CV and cover letter to:

Missy Fisher, Clinician Recruiter
HealthSystem Minnesota Park Nicollet Clinic
3800 Park Nicollet Boulevard - 7N
Minneapolis, MN 55416
(612) 993-6025 or (888) 437-5004
(612) 993-2819 fax
***fishem@hsmnet.com***

Equal Opportunity/Affirmative Action Employer

AUGUST 2000 INDEX TO ADVERTISE

Acute Care, Inc. .....
Affiliated Community Medical Centers .....
Allina .....
Allina Continuing Education .....
Aspen Medical Group .....
Brainerd Medical Center ..... 32
CentraCare Clinic .....
Custom RX Compounding .....
Delacore Resources .....
Emergency Practice Associates .....
First Call Physicians, Inc. .....
Hazelden Center for Youth & Families .....
HealthPartners Inst. CME for Medical Education .....
Health Partners-Ludlow .....
HealthSystem Minnesota/Park Nicollet .....
Hennepin County Medical Center ..... 5
Lakeview Medical Clinic, PA .....
Management Services by Choice .....
Mankato Clinic .....
Medical Protective Co. .....
MeritCare .....
MICOA Mutual Insurance Company of America ..... Cov
Midwest Medical Insurance Company ..... 3
Minnesota Center for Rural Health. .....
MMBR ..... 31, 50, 56, 62, Cov
Montevideo Clinic .....
Multicare Associates of the Twin Cities ..... 38
North Memorial Healthcare .....
Owatonna Clinic-Mayo Health Systems .....
Regions Hospital ..... Cov
Ridgeview Medical Center .....
Sioux Valley Hospital & Health System .....
St. Paul Medical Services .....
Whitesell Medical Locums, Ltd. .....
Winona Clinic, Ltd. .....

21 18 15

# Minnesota Medicine

JOURNAL OF CLINICAL AND HEALTH AFFAIRS

HS/HSL
UNIVERSITY OF MARYLAND AT
BALTIMORE
SEP 27 2000
STACKS STACKS
REC'D NOT IN CIRC.

GAME OVER

1196B-40232 Exp: 12/2000
Univ. of Maryland
Health Sciences Lib.

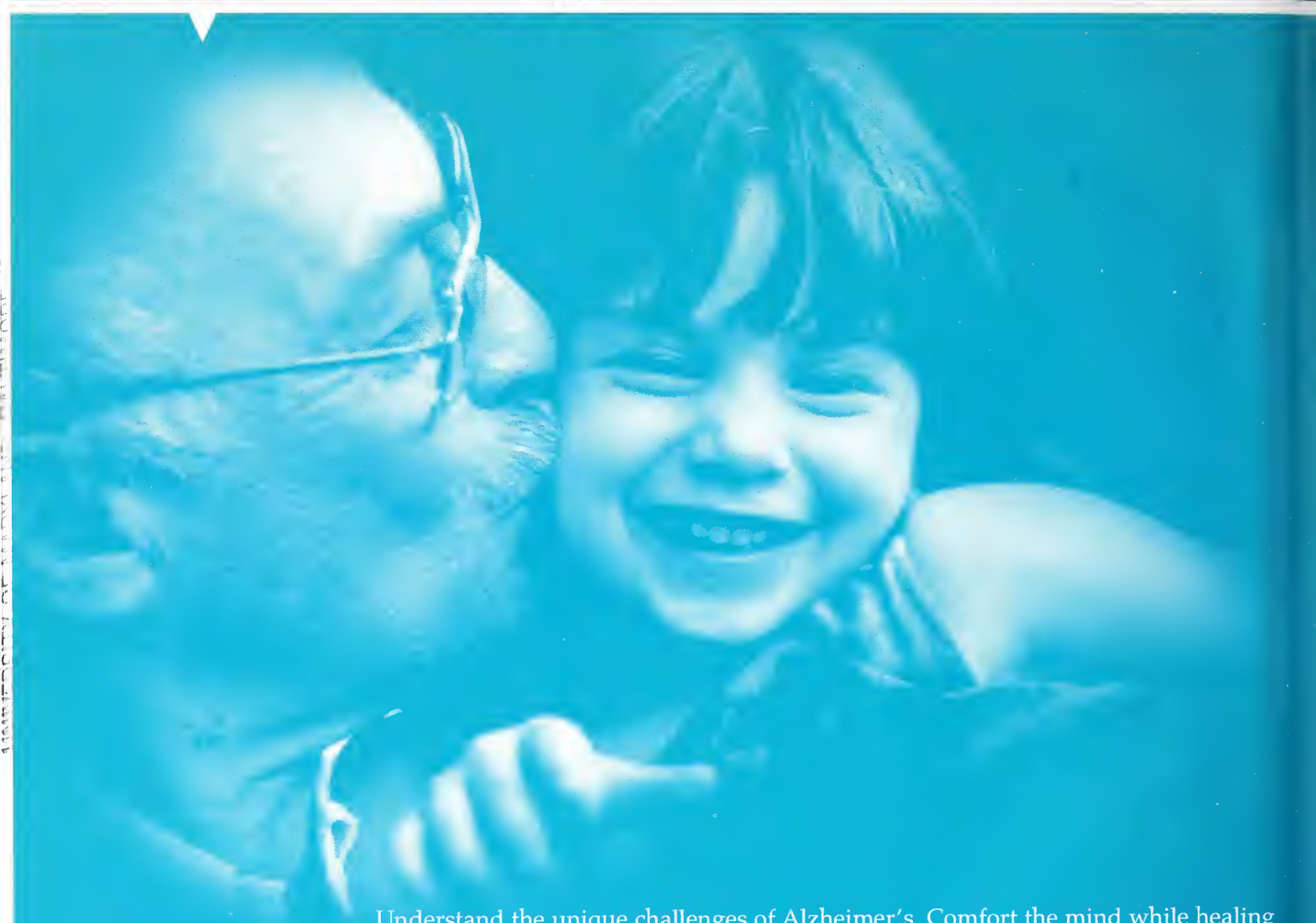
## KIDS, GUNS & MEDIA VIOLENCE

EMBER 2000

DEFENSE AUTHORITY
MISSION:
to administer the transfer of dangerous
felons from earth to the new rehabilitat

# MEMORIES MAY FADE

## BUT LIFE DOESN'T HAVE TO



Understand the unique challenges of Alzheimer's. Comfort the mind while healing the body. And maximize human potential to make every day an unforgettable one. It's how Bethesda reinvents lives.

**BETHESDA REHABILITATION HOSPITAL**

800-566-2720

St. Paul, MN

HealthEast Care System

*Dedicated to Caring.*

www.healtheast.org

GERIATRIC MEDICAL/BEHAVIORAL | BRAIN INJURY | RESPIRATORY CARE | REHABILITATION

# Minnesota Medicine

Published monthly by the Minnesota Medical Association




COVER

*Photograph ©2000 Barros & Barros/The Image Bank.*

DEPARTMENTS


2 ..... Editor's Note

33 ..... MMA News & Views

66 ..... CME in Minnesota

71 ..... Classified Ads

72 ..... Index to Advertisers


**Preventing Youth Violence: Strategies That Work**


*Protecting Youth from Harm, by Judith Kahn, M.S.W., page 47*

*Promising Approaches to Youth Violence Prevention, by Renee Vanman Wixon, M.P.H., page 49*

*Beyond Treating the Wounds, by Jill Heins Nesvold, M.S., Sara Seifert, M.P.H., Neal Holtan, M.D., M.P.H., and Janny Dwyer Brust, M.P.H., page 51*

*Listening to Rural Minnesota, by Cheryl Heilman, J.D., page 54*


FACE TO FACE


**6** **Reaching Communities of Children** ..... Kim Palmer
*Mary Braddock, M.D., M.P.H., leads Children's Hospitals and Clinics' community health outreach.*


PERSPECTIVES


**11** **Troubled Kids, Troubled Times** ..... Hennepin County Youths
*Youths on probation for firearms offenses share their experiences with and feelings about violence.*

**14** **Boys and Their Toys** ..... Jon Hallberg, M.D.
*A father reflects on his young son's fascination with imaginary violence and his own childhood discovery of healing amid war play.*


FEATURE STORIES


**18** **Babes in Arms: Juvenile Access to Guns in Minnesota** .... Sgt. Jeff Rugel
*With so many firearms changing hands through "straw man" purchases, barter, and theft, children can easily find a way to get a gun.*

**24** **Striking Back** ..... Cynthia Lehman
*Fifteen years ago, gangs were all but unknown in Minnesota. Today, it takes a statewide effort by the Minnesota Gang Strike Force to contain the spread of gang crime and violence.*

**28** **Media Violence: The Harsh Reality** ..... Stephanie Stapleton
*Experts are expanding warnings about the dangers of exposing children to entertainment savagery—including content from interactive computer and video games.*


SPECIAL REPORTS


**42** **Interactive Media Violence and Children** ..... David Walsh, Ph.D.
*Testimony submitted to the Committee on Commerce, Science and Transportation, United States Senate—March 21, 2000.*


CLINICAL & HEALTH AFFAIRS


**57** **Pediatric Firearm Injury in Minnesota, 1998: Fatal and Nonfatal Firearm Injuries among Minnesota Youth** ..... Jon Roesler, M.S., and Melissa Ostercamp, B.S.N., R.N.

**62** **Firearm-related Suicide in Minnesota: A Picture of Morbidity and Mortality** ..... Jill Heins Nesvold, M.S., and Neal Holtan, M.D., M.P.H.

**64** **Calculating the Costs of Gun Injuries: A New Methodology** ..... Janny Dwyer Brust, M.P.H., Angeline Carlson, Ph.D., Sara Seifert, M.P.H., and Mary Braddock, M.D., M.P.H.

# The Roots of Youth Violence

On January 17, 1977, the state of Utah executed Gary Gilmore by firing squad for the murder of two men. The execution was notable because Gilmore's was the first U.S. execution in 10 years and because Gilmore had steadfastly refused attempts to appeal his death penalty, insisting that he wanted to be punished for the crimes he had committed. The execution became more notable with the publication in 1979 of "The Executioner's Song," a fictionalized depiction of Gilmore's life by Norman Mailer.



*"Gary Gilmore's childhood and his path to death row teach lessons about the roots of youth violence."*

The book won the Pulitzer Prize for Mailer, resurrected Gilmore's remarkable story posthumously, and eventually was made into a TV movie. Another postmortem account appeared in 1994 when Mikal Gilmore, Gary's brother, published "Shot in the Heart," a memoir of growing up in the Gilmore household—a caldron of dysfunction and violence. Gary Gilmore's childhood and his path to death row teach lessons about the roots of youth violence, the theme of this month's *Minnesota Medicine*.

The Gilmore family was a genealogical study in domestic disruption. Gary Gilmore's father, Frank, was the product of Fay, who conjured spirits under the name Baby Fay LaFoe, and "probably," Harry, who left the family when Frank was 3. (Family legend held that escape artist Harry Houdini was Frank's father.) Frank's mother found her own escape, farming her son off to multiple boarding schools. Following this gypsy childhood, Frank's adult life was a series of drunken brawls and multiple official and unofficial marriages mixed with recurrent brutality toward wives, girlfriends, and children.

Frank and his "official" wife, Bessie Gilmore, had four boys. Their home rang with shouts of anger and rumbled with blows of violence. Frank Gilmore's discipline was physical and capricious. Mikal's brother Frankie complained that "Dad just had too damn many rules. ... He'd make ten thousand rules, knowing that nobody could obey them all. That way there was always something he could punch you for." The unstable atmosphere in the Gilmore house affected all four boys, but Gary's reaction was extreme: "Gary ... could not shut down: The outrage and unfairness of being beat that way became a sticking point in his heart." Gary fought and stole as a boy, spent years in prison, and finally, fatally shot two innocent men in July 1976.

The elements known to protect kids from violence, detailed in several of this month's articles (starting on page 46), were notably absent in Gary Gilmore's youth. Judith Kahn's article describing these protective factors (page 47) is sharply contrasted by Mikal Gilmore's narrative.

- **Parents matter,** says Kahn, and the more connected the parent and child are, the less chance of violence. Mikal describes a Gilmore family photo: "Nobody in the photo is touching anybody else. ... There would never be a photo taken of all of us together."
- **Parents need to be present to supervise and model behavior.** Frank Gilmore "needed to be somewhere different all the time."
- **Connectedness to school helps protect youth from violent behavior.** "Many of the boys who were in the same classes as my brothers would go on to kill or to be murdered. It was that kind of school, that kind of place."
- **Children benefit from adult mentors outside the family.** "Gary started keeping company with those who lived by night."

Maybe Gary Gilmore could have ended up differently. But the odds were slim. Early in "Shot in the Heart," Mikal Gilmore asks, "Could I locate one moment where everything went wrong, one moment—or period of time—that might have made all the difference?" He answers no. "Each moment made a difference, and there were just too damn many of them that were bad."

*–Charles R. Meyer, M.D., Editor-in-Chief*

# Helping make MRI diagnostic affordable for everyone.

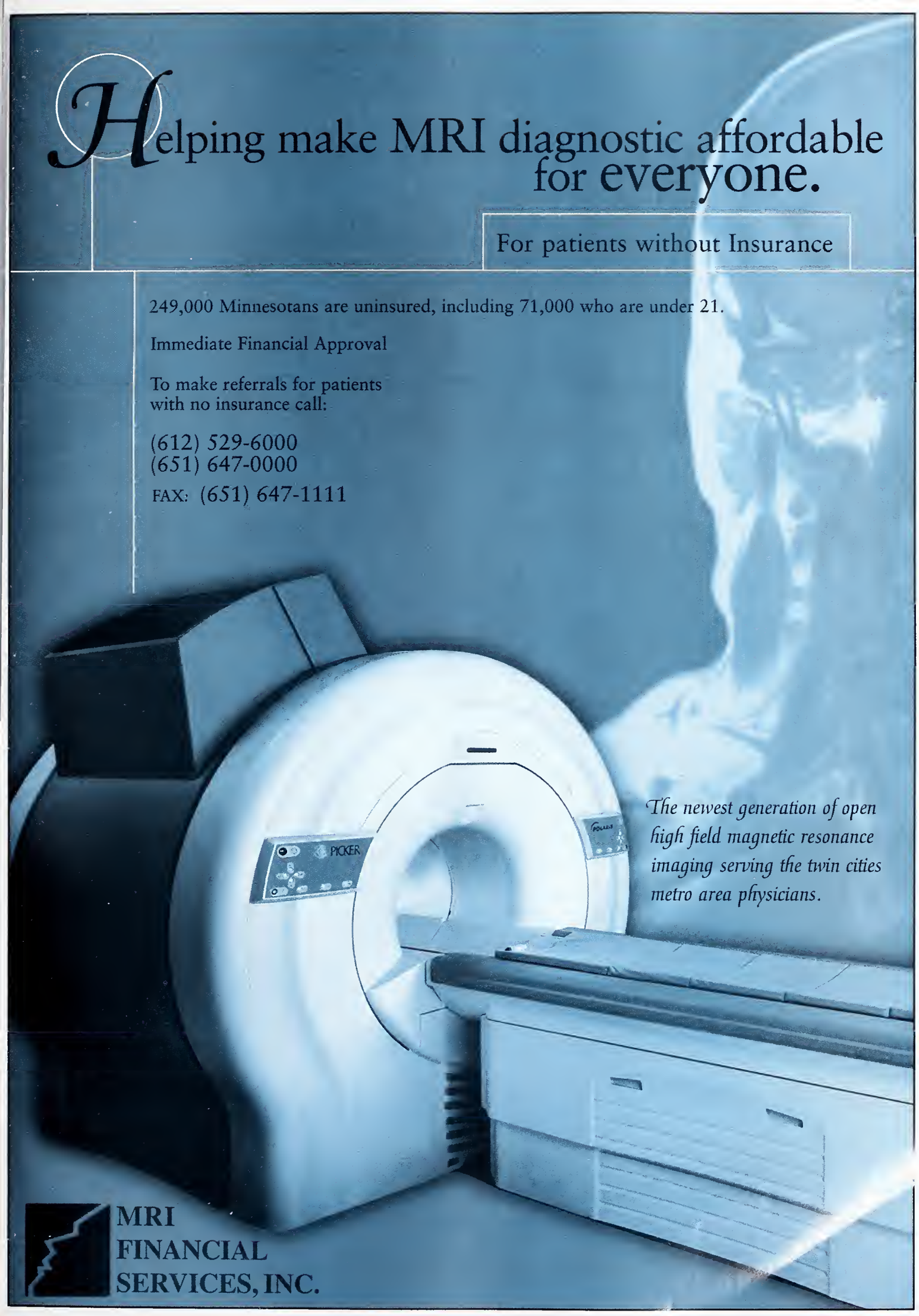
## For patients without Insurance

249,000 Minnesotans are uninsured, including 71,000 who are under 21.

Immediate Financial Approval

To make referrals for patients with no insurance call:

(612) 529-6000
(651) 647-0000
FAX: (651) 647-1111




*The newest generation of open high field magnetic resonance imaging serving the twin cities metro area physicians.*

**MRI FINANCIAL SERVICES, INC.**

# *Minnesota Medicine*

Published monthly by the Minnesota Medical Association

*Owner and Publisher*
Minnesota Medical Association

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Managing Editor*
Meredith McNab

*Associate Editors*
Margaret Parker
Carmen Peota

*Publications Assistant*
Katie Ocel

*MMA News & Views Editor*
Lorrie Holmgren

*MMA News & Views Writer*
Cynthia Lehman

*Graphic Designers*
Barbara Gerbig
Katie Ocel

Send manuscripts, subscriptions, and other material for consideration to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/378-1875. E-mail: mm@mnmed.org
The editors reserve the right to reject editorial, scientific, or advertising material submitted for publication in *Minnesota Medicine.* The views expressed in this journal do not necessarily represent those of the Minnesota Medical Association, its editors, or any of its constituents. Annual subscription–$40. Single copies–$3.50. Canadian–$70. Foreign–$70.

*To Advertise:* Contact Michele Holzwarth, *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/623-2880 or 800/DIAL MMA (342-5662).



**Advisory Committee**

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Advisory Committee*
Charles R. Meyer, M.D.
Edmund C. Burke, M.D.
Richard C. Lussky, M.D.
Lynne Ogawa, M.D.
Paul S. Sanders, M.D.
Leif I. Solberg, M.D.
Barbara P. Yawn, M.D.
Meredith McNab, staff

*Editors Emeritus*
Edmund C. Burke, M.D.
1991-1993

Richard L. Reece, M.D.
1975-1990

Reuben Berman, M.D.
1971-1974

Carl O. Rice, M.D.
1961-1970



**Copyright & Post Office Entry**

*Minnesota Medicine* (ISSN 0026-556X) is published on the fifth of each month by the Minnesota Medical Association, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761, copyright 2000. Permission to reproduce editorial material in this magazine must be obtained from *Minnesota Medicine.* Periodicals postage paid at Minneapolis, Minnesota, and at additional mailing offices. POSTMASTER, send address changes to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761. (USPS 3519000.)



MINNESOTA MEDICAL ASSOCIATION

**1999–2000 Officers**

*President*
John M. Van Etta, M.D.

*President-Elect*
Blanton Bessinger, M.D.

*Chair, Board of Trustees*
Robert K. Meiches, M.D.

*Vice President*
Kevin C. Fleming, M.D.

*Secretary*
David L. Estrin, M.D.

*Treasurer*
Noel R. Peterson, M.D.

*Speaker of the House*
Gary D. Hanovich, M.D.

*Vice Speaker of the House*
Rebecca Jean Hafner, M.D.

*Past President*
Judith F. Shank, M.D.

*Chief Executive Officer*
Paul S. Sanders, M.D.

**MMA Senior Staff**

*Director of Communications*
Lorrie Holmgren

*Chief Financial Officer*
George C. Lohmer Jr.

*Director of State and Federal Legislation*
David Renner

*Director of Health Law*
Christina F. Rich, J.D.

*Director of Health Economics and Policy Analysis*
Janet Silversmith

*Director of Executive Office*
Karen A. Tourdot

**Alliance**

*President*
Diane Gayes

*President-Elect*
Pam Schmidt

**Board of Trustees**

*N.W. District*
Jerry P. Rogers, M.D.

*N.E. District*
James L. Anderson, M.D.
Charles R. Helleloid, M.D.

*N. Central District*
James J. Dehen Jr., M.D.
Keith D. Larson, M.D.

*West Metro*
Lee Beecher, M.D.
Karen K. Dickson, M.D.
John W. Larsen, M.D.
Robert K. Meiches, M.D.
Henry T. Smith, M.D.

*East Metro*
Thomas Dunkel, M.D.
Joseph L. Rigatuso, M.D.

*S.W. District*
Terence P. Cahill, M.D.
Elton G. Wing, M.D.

*S.E. District*
Peter Amadio, M.D.
G. Richard Geier Jr., M.D.
Kimberly McKeon, M.D.

*Resident Member*
Andrew G. Moore, M.D.

*Medical Student*
Joel V. Oberstar

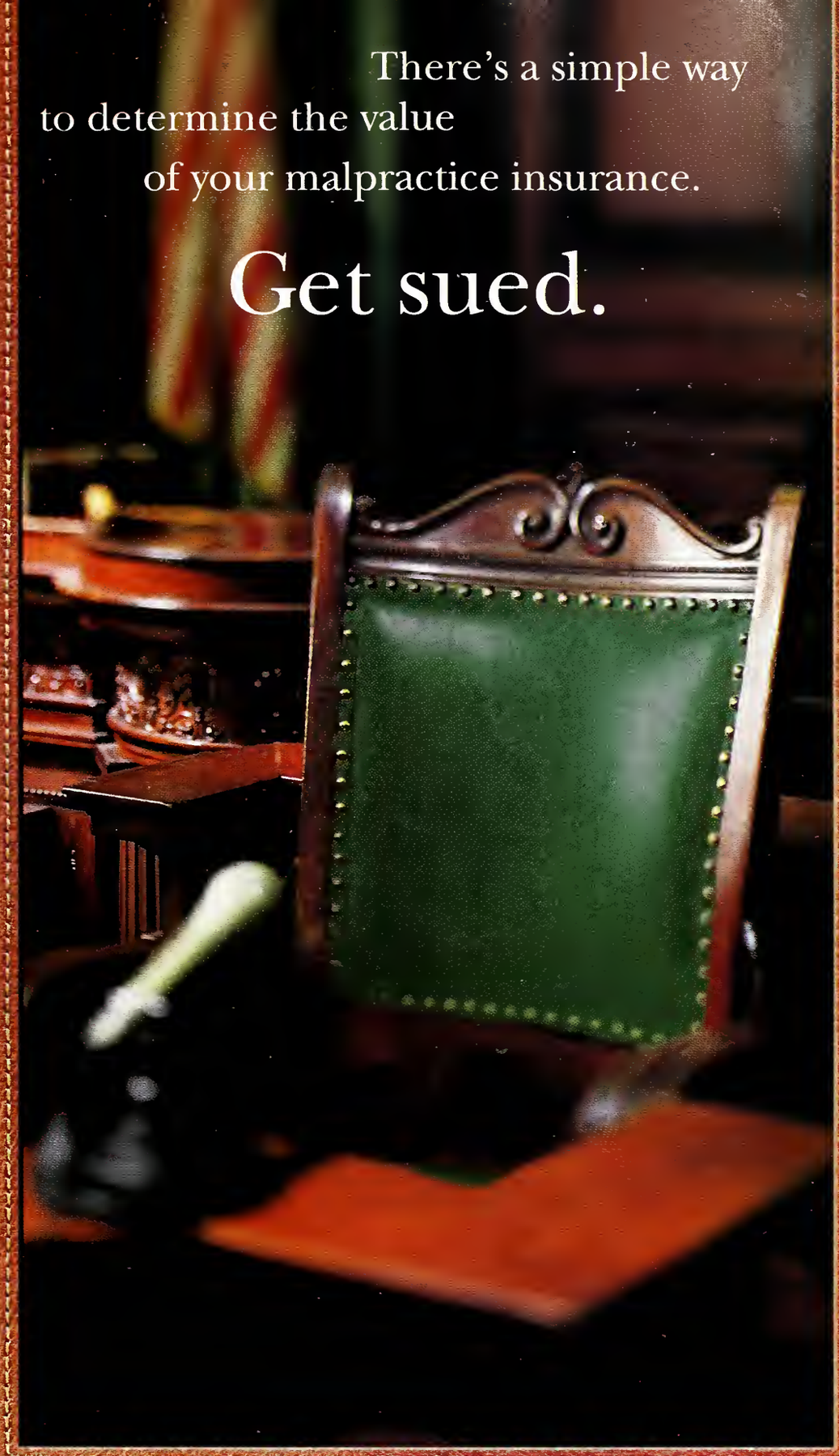
**AMA**

*AMA Delegates*
Robert D. Christensen, M.D.
Frank J. Indihar, M.D.
Carolyn J. McKay, M.D.
Lyle Munneke, M.D.
Audrey M. Nelson, M.D., *Chair*
Thomas L. Peyla, M.D.
Andrew J.K. Smith, M.D.

*AMA Alternates*
Raymond G. Christensen, M.D.
Kenneth W. Crabb, M.D.
Anthony C. Jaspers, M.D.
Paul C. Matson, M.D.
Sally Trippel, M.D.
John M. Van Etta, M.D.
Benjamin H. Whitten, M.D.


**MMA Address**

Minnesota Medical Association
3433 Broadway Street NE, Suite 300
Minneapolis, MN 55413-1761
Phone: 612/378-1875 or 800 DIAL MMA (342-5662)
Fax: 612/378-3875
E-mail: mma@mnmed.org
Web site: www.mnmed.org




We said it was simple. We didn't say it was a lot of fun. But you get what you pay for. And with Medical Protective you're paying for a company that wins 90% of its cases that go to trial with a vast majority closing with no payment. You're paying for coverage that fits your needs and a policy that leaves the final decision to settle in your hands.*

You're also paying for something else – peace of mind. A peace of mind that was recently strengthened when The Medical Protective Company became a part of Employers Reinsurance Corporation, a GE Capital Services company. This union solidifies our absolute commitment to the protection of doctors like you. If your most valuable asset, your reputation, is on the line, protect yourself with our unparalleled defense strategy. Nearly 60,000 of your colleagues do. For the Medical Protective representative in your area, call (800) 344-1899.

www.medicalprotective.com

**The Medical Protective Company®**

*Unless prohibited by law.

# Reaching Communities of Children

*Mary Braddock, M.D., M.P.H., leads Children's Hospitals and Clinics' community health outreach.*

By Kim Palmer

Working four years in a Hartford, Connecticut, emergency room was the pivotal experience that impelled Twin Cities pediatrician Mary Braddock to become a voice against violence. "It was the late '80s during the crack [cocaine] epidemic," she says. "I couldn't stand seeing the same thing every day"—kids whose lives had been ripped apart by gang violence and abuse. "That's what got me interested in violence prevention."

Today, as medical director for community health and preventive medicine at Children's Hospitals and Clinics, Braddock, 43, oversees the organization's community health programs, research, and advocacy efforts. Children's has identified three priority areas: violence prevention, injury prevention, and asthma treatment and prevention. "These are real risk areas for children's health," she says. "We look for areas where we can have the biggest impact, then try to engage as many departments as possible." Braddock spends a lot of time meeting with people in the community, determining their needs and how Children's can help, and removing the barriers. "People ask me if I do this [instead of clinical practice] because I got tired of being a pediatrician. I always say I do it because I enjoy being a pediatrician. ... I'm doing exactly what I want to do: working to improve the health of large populations of children. This work is so fulfilling."

Braddock continues to see patients one day every other week at the Children's St. Paul Clinic. "I do it to keep my hand in and because I enjoy it," she says. "I don't want to lose touch with the challenges faced by busy clinicians."

The public health field sometimes generates "laundry lists" of what doctors should do, Braddock says. "But what works in theory doesn't always work as well in practice. Working at the clinic helps me a lot, as far as seeing what would be useful in a busy clinical practice."

One example is Children's "Positive Parenting for Healthier Children" initiative, which has resulted in a positive discipline booklet for parents (distributed to clinics), a June '99 symposium for health care providers, and a training video, currently in production. Braddock took part in development and fund-raising for the program, and served on the review team for the booklet.

Braddock works closely with Elizabeth Myhre, Children's director of community health and preventive medicine, and Mary Anne Mathews, R.N., community health education specialist. "We work as a team," Braddock says. Mathews specializes in education and training, while Myhre brings expertise in adolescent health and health care administration. "I have the conceptual role, distilling research to keep our work grounded in science and data, and to keep it relevant for clinicians. That's a unique role I have because I'm a physician—linking this work to clinical practice and the continuum of care."

## *Led Astray*

Thinking conceptually and finding links between disciplines fits Braddock's style. She decided to become a physician at an early age, but took an

unusual route—and a few interesting side trips—along the way.

A good science student, Braddock had planned to be a chemistry major at Carleton College but was "led astray," she says with a laugh. "As a sophomore, I bagged premed and studied comparative religions instead. Religion was so exciting!" One of her professors, a Buddhist scholar, encouraged her and became her mentor. "He felt religion was an appropriate background for a doctor," she says.

Her religion studies have significantly influenced her medical career, she says. "It's completely affected what kind of doctor I am. When you study comparative religions, you learn and think about different cultures and their history, which has a lot of bearing on how people experience health and wellness. You develop an appreciation for how complex people are, yet how they share the same deeper nature. Modern medicine sometimes neglects or even destroys that."



PHOTOGRAPH BY ROB LEVINE

*Dr. Mary Braddock works to improve the health of large populations of children by linking what works in theory with real-life practice.*

She recalls a pediatric asthma patient she saw recently. "The parents were noncompliant as far as medication, yet they seemed very caring." Puzzled as to why these devoted parents weren't being conscientious about the medication their child needed, Braddock talked with them at greater length. "It turned out that the mother had a relative who was a drug addict and played a very destructive role in the family. She didn't want to give her child medication every day. So we talked about how medicine can be something positive, as well as negative." The conversation seemed to make a difference, Braddock says. "Many physicians do this—you don't have to be a religion major, obviously, to look at the whole person and find clues to help them achieve best health. But religion has given me a deeper understanding of human nature so that I could take the extra time to see that something was very troubling to her."

Braddock's interest in other cultures prompted her to seek a Henry Luce Foundation scholarship. Halfway through medical school at the University of Missouri-Columbia, she spent a year in Java, Indonesia, evaluating an urban community health program. The physician she worked with had few supplies or amenities, "so we did a lot of health education," she says. "That's where I got interested in public health."

In addition to assisting with family planning and other day-to-day health issues, Braddock and the physician had to help their patients through a cholera outbreak, teaching them the importance of clean water and providing them with oral rehydration packets supplied by the World Health Organization. "It was exciting how much you could accomplish by giving people tools and knowledge," Braddock says. "It gave me an appreciation for what good public health could do."

## *Fish out of Water*

Back in the United States, Braddock finished medical school, then completed her internship and later her residency at the University of Texas Medical Branch, chosen because of its community pediatrics program.

Then she went to Johns Hopkins to pursue a master's degree in public health.

Her interdisciplinary approach to medicine has sometimes left her feeling out of step with the mainstream, she admits. "I've always felt a little like a fish out of water."

If pushing the medical envelope comes naturally to Braddock, perhaps it's because she had an early role model—her mother. Girls didn't become doctors in the traditional Lebanese community in which Braddock's mother was raised. Braddock says one of her grandfather's friends even said, "What a waste of money—sending a girl to all that school." But her mother persisted, becoming an academic pediatrician and raising Braddock and her three brothers alone after their father, a chemist, died when Braddock was in her teens. "She made it seem like medicine was a great opportunity to do a variety of things," Braddock says. "You could be a teacher, a researcher, an advocate. For me, medicine felt like a wide-opportunity field."

St. Paul Children's hired Braddock in 1993 to develop a community health focus for the hospital. "Before that, there were individual efforts, but it wasn't coordinated. It wasn't integrated into the institution," she says. In 1995, her role was expanded to develop public health programming for the whole Children's system.

## *Daily Burden of Violence*

Braddock, a mother of two, is passionate about violence prevention. Children's has collaborated with Allina and other health organizations on several studies and other projects relating to the impact of violence on children. "What we've found is that drug-related homicide and gang violence are decreasing, but teens are still exposed to a daily burden of fights, bullying, threats, and date violence," Braddock says. Up to 20 percent of Twin Cities teens report being victims of violence, and nearly all report knowing someone who has been a victim.

Children's has also produced a series of public service announcements about gun safety, alerting parents to the health risk a loaded weapon in the home poses to children. "If people think the gun problem is an inner-city drug problem, they're missing the boat. It's a Minnesota problem," Braddock says. "We have good reason to believe that nearly half the homes in Minnesota have guns in them."

Although many gun owners say they keep guns as protection against intruders, statistics indicate that guns are much more likely to be used against someone in the household, Braddock says. "A loaded gun is most likely to be used by a young child, a depressed teen, or an angry, intoxicated spouse," Braddock says. "That's what the general public is missing: The safest home is one without a gun."

## *The Physician's Role*

Doctors are ideally situated to play a positive role in violence prevention, Braddock says, because they have opportunities to ask questions and refer people to resources that can help. Ideally, she'd like physicians to screen teens in emergency rooms and clinics about the violence in their lives, "asking if anyone in their life is hurting them, and letting them know that it's not OK. Just being asked about it is such a comfort; teens say no one ever asks."

Many physicians are concerned about violence and want to help, according to Braddock, but they just don't have time for lengthy conversations with their patients. "Doctors say, 'I'm too busy. I have too many patients.' I empathize," Braddock says. "We're trying to find ways to make it easy.

"The average clinical visit is seven or eight minutes," she continues. "Even in this heavily managed-care environment in Minnesota, I'd like to see good well-child care take a little more than seven or eight minutes. At least in the pediatric setting, you have multiple opportunities to bring up the subject of violence; you don't have to do everything at once." Many pediatricians already consult with their patients about discipline and other parenting matters, Braddock says. "Doctors ask, 'Do you use a car seat?' It doesn't take much time to talk a little about gun safety."

Braddock suggests physicians also ask parents the following question: " 'If there's a firearm in your house, how is it kept?' We recommend that guns be stored locked and unloaded, with a trigger lock and the ammunition kept separately. All it takes is a sentence or two. It's not rocket science." MM

*Kim Palmer is a Twin Cities writer and editor.*

### *Dr. Mary Elizabeth Braddock*

| | |
|---|---|
| *Title:* | *Medical Director, Community Health and Preventive Medicine, Children's Hospitals and Clinics* |
| *Age:* | *43* |
| *Education:* | *B.A. in religion, 1979, Carleton College; M.D., 1984, University of Missouri-Columbia School of Medicine; M.P.H., 1988, Johns Hopkins School of Hygiene and Public Health* |
| *Family:* | *Husband, Kevin Schaffer, research chemist at 3M; daughters Leah, 7, and Emma, 5* |

# HealthPartners®
*Institute for Medical Education*

## Continuing Professional Development 2000 Offerings

Cardiology Today ..... Every Third Tuesday
Strategies in Primary Care Medicine ..... September 28 – 29, 2000
Women's Health: New Information for a New Century ..... November 3, 2000
Pulmonary and Critical Care Medicine ..... November 9 – 10, 2000
Orthopedic Practicum for Primary Care ..... November 17 – 18, 2000
22nd Annual Cardiovascular Conference ..... December 7 – 8, 2000

**For Further Information Contact:**
*Health Partners Institute for Medical Education*
*Continuing Professional Development*
*640 Jackson Street • St. Paul, MN 55101*
*Phone 952-883-6225 • Fax 952-883-7272*
*Web site: IME.HealthPartners.com*



Brave?



Foolhardy?

Uncommon wisdom
Common sense℠

*When facing a particularly complex health law challenge, smart attorneys will advise their clients of the upside potential as well as the pitfalls. Before we embark on a course of action, we carefully survey the terrain and come well-equipped for any eventuality. Uncommon at most law firms. Common sense at Leonard, Street and Deinard.*

LEONARD
STREET
AND
DEINARD

MINNEAPOLIS · SAINT PAUL · MANKATO
(612) 335-1825 www.leonard.com

# Special Care



## for Special Patients

Vencor

## Our Patient Care Services

Ventilator Weaning
Tracheostomy with Respiratory Needs
Cardiac Related Disorders
Neuromuscular/Neurovascular Disease
Methicillin-Resistant Staphaureus (MRSA)
Management of Complex Orthopedic Patients
Extensive Wound Care Complications
Multi-System/Organ Failure
Respiratory Failure
Dysphagia Management
Chest Trauma
Pulmonary Rehabilitation
Extensive Post-Operative Complications
Multiple Intravenous/Antibiotic Therapy
Pre-and Post-Operative Organ Tansplant Care
Total Parenteral Nutrition (TPN)
Vancomycin Resistant Entercoccus (VRE)

## Funding

Vencor Hospital • Minneapolis provides a full spectrum of quality care and aggressive therapies at an overall cost substantially less than traditional acute care hospitals. Reimbursement is accepted from the following:

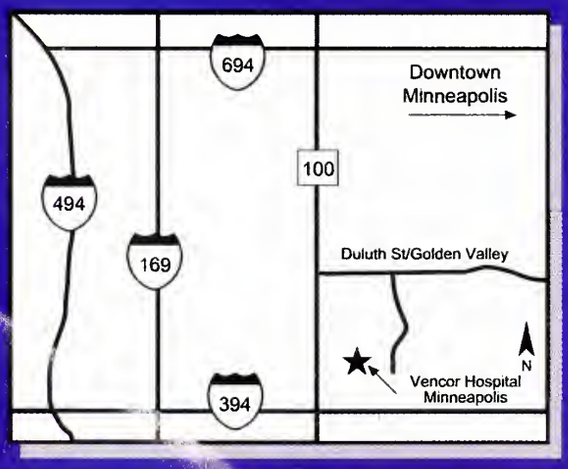
- Medicare (DRG Exempt)
- Medicaid
- Commercial Insurance
- Private or Self-Support
- Champus
- Managed Care

## Licensure/Accreditation

JCAHO
HCFA (Medicare Certification)
Acute Care Hospital (State of Minnesota)

## Location

Vencor Hospital • Minneapolis is conveniently located at 4101 Golden Valley Road in Minneapolis, Minnesota.




Recovery from an illness, accident or injury requires experienced medical professionals, state of the art equipment and technologically advanced therapies. It also requires a comforting, nurturing staff, a "home away from home" environment and family involvement in patient care. Our hospital is dedicated to the recovery of critically ill patients. And we're with you every step of the way, with cost-effective care.

Vencor Hospital • Minneapolis is a specialty hospital for the critically ill/medically complex patient that provides a full spectrum of intensive and acute care for patients suffering from catastrophic illness or acute levels chronic diseases. Patients are referred to Vencor Hospital • Minneapolis because the severity and complexity of their medical condition precludes them from being accepted into a rehabilitation facility, subacute program or skilled nursing home. Vencor Hospital • Minneapolis also has an eight (8) bed Intensive Care Unit.

Admissions to Vencor Hospital • Minneapolis may be recommended by physicians, acute care hospitals, rehabilitation facilities, managed care providers, case management companies, or by the patient's family. In all cases, tours are encouraged.

To refer a patient to Vencor Hospital • Minneapolis, simply call the Referral Line at (612) 522 • 1899. Upon receiving the referral, a Vencor Hospital • Minneapolis Clinical Case Manager will evaluate the patient within four hours. The referring agency will be notified within 24 hours regarding the disposition decision.

Vencor Hospital • Minneapolis
4101 Golden Valley Road Golden Valley, Minnesota 55422

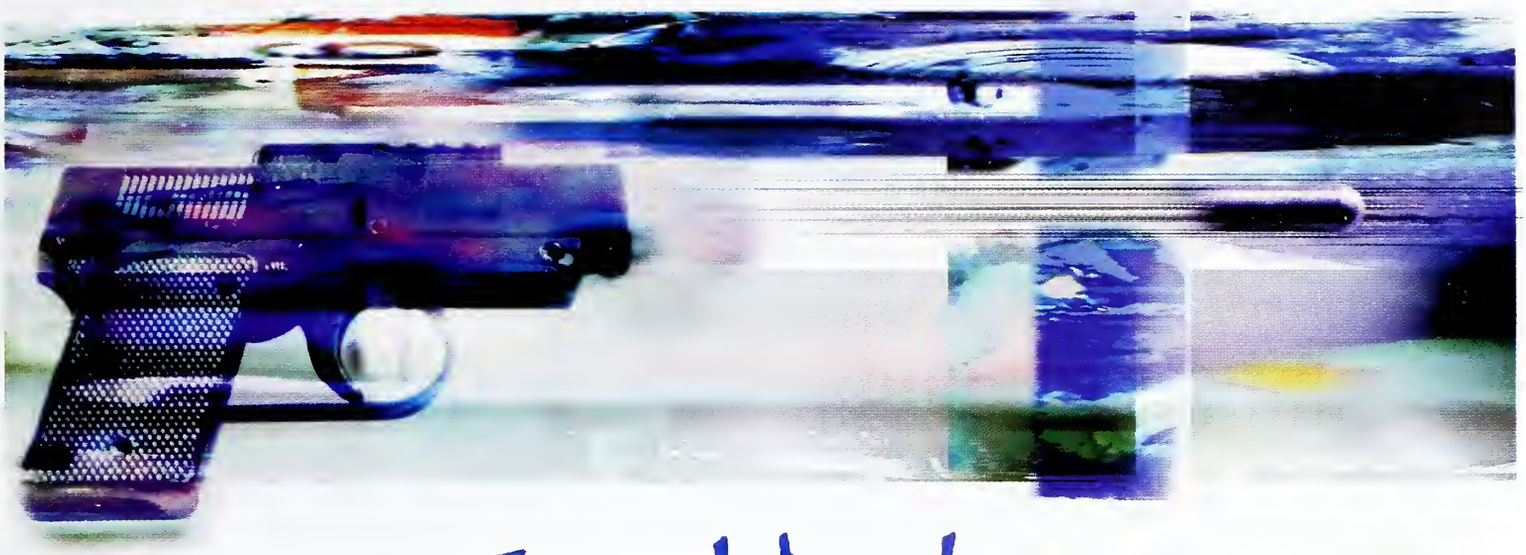


ILLUSTRATION BY EYEWIRE

# Troubled Kids, Troubled Times

**Youths on probation for firearms offenses share their experiences with and feelings about violence.**

In 1995 Hennepin County started the Juvenile Gun Program to respond to the rising number of youths coming into the juvenile justice system on gun offenses. The program is a court-ordered condition of probation for youths charged with firearms violations. The juveniles meet for 40 hours over 16 weeks, listening to speakers that have included prisoners, a judge, the mayor of Minneapolis, a minister, police investigators, the mother of a murdered child, a juvenile on death row, and a staff member whose brother was convicted of murder. They witness a reenactment of a hospital emergency room scene depicting the aftermath of a shooting, and they tour the county workhouse. In addition, they read and discuss news articles on gun violence in the Twin Cities and explore anger management strategies. To satisfy a 60-hour community service requirement, the young people help maintain parks and clean up neighborhoods, among other projects. Following are excerpts from letters written by program participants to the gun program staff.

IN THE BEGINNING OF THE PROGRAM I WAS CALM AND EXCITED ABOUT DOING THE PROGRAM AND GETTING IT OVER WITH. BY ME KNOWING I WOULDN'T HAVE TO DO ANY JAIL TIME I THOUGHT IT WAS NO BIG DEAL, BUT ON THE OTHER HAND I DIDN'T THINK I DESERVED ANY CONSEQUENCES. I ALSO WAS SURPRISED ABOUT ALL THE YOUNG BOYS THAT WERE IN THE PROGRAM. I KNEW THAT THERE WAS A LOT OF GUN VIOLENCE, BUT I DIDN'T KNOW THAT SO MANY YOUNGER PEOPLE HAD ACCESS TO GUNS. I NEVER SURROUNDED MYSELF WITH ANY GUNS. THEY WERE JUST SOMETHING I HAD GOT FOR PROTECTION. AT FIRST I THOUGHT IT WAS A PROGRAM TO TRY AND SCARE YOU TO NOT EVER CARRY A GUN AGAIN. BUT I NOTICE THAT THEY DON'T TRY AND SCARE YOU—THEY TRY AND HELP YOU MAKE THE RIGHT CHOICES.

THE PROGRAM HASN'T CHANGED ME BECAUSE NO ONE CAN CHANGE ME BUT MYSELF. SINCE I'VE BEEN IN THE GUN PROGRAM I'VE MADE BETTER CHOICES THAN IN THE PAST, LIKE NOT SMOKING WEED AND NOT SURROUNDING MYSELF WITH THE SAME GROUP OF PEOPLE. THE GUN PROGRAM HAS HELPED ME NOTICE ALOT OF WAYS A GUN CAN SCREW YOUR LIFE, LIKE GOING TO PRISON FOR KILLING SOMEONE OR SHOOTING THEM OR EVEN JUST HAVING IT IN YOUR POSSESSION.

BEING COURT ORDERED IS WHAT KEPT ME IN THE PROGRAM AND ATTENDING THE MEETINGS. THE PROGRAM HAS HELPED ME BY TEACHING ME THE RIGHT AND WRONG CHOICES I HAVE TO MAKE THROUGHOUT MY LIFE. THE MOST IMPRESSING PART OF THE PROGRAM IS WHEN WE WENT AND SAW AN ACTUAL PRISON AND PEOPLE BEING LOCKED UP AND THEIR FREEDOM TAKEN AWAY. THAT'S WHAT'S GOING TO HELP ME CONCENTRATE ON NEVER PICKING UP AND USING A GUN.

-17-YEAR-OLD GIRL

A MONTH AGO I SEEN THIS MAN BEATEN UP BADLY BY THESE RIVAL GANG MEMBERS. HE (THE VICTIM) STOOD ON THE CONCRETE, BRUISED AND BLOODY. I SEEN IT ALL, BUT WHAT COULD I HAVE DONE IN THAT SITUATION? IF I WOULD OF YELLED FOR HELP, DON'T YOU KNOW SOMEONE WOULD OF KILLED ME? PICTURE ME RUNNING UP ON THE GANG RIVALS, TALKING ABOUT LEAVE HIM ALONE, PUTTING YOUR LIFE INTO DANGER. I FELT PRETTY BAD, KNOWING I COULDN'T DO ANYTHING BUT TO WITNESS WHAT HAPPENED. I WANTED REVENGE AND I THOUGHT TO MYSELF, WHAT WOULD HAPPEN IF THIS PERSON OR PERSONS DO THIS AND THAT TO ME? I WOULD END UP LIKE SOMEBODY IN THAT PARTICULAR POSITION—DEAD IN A DITCH AND SHOT UP. I WON'T WANNA BE THAT PERSON. I WANT TO ACHIEVE ENTREPRENEURSHIP IN MY LIFE. I STILL HAVE FEELINGS FOR GUNS AND DIRECT VIOLENCE EVERYWHERE. I WANT TO BE SAFE AND STAY AWAY FROM NEGATIVITY PERIOD. I KNOW A LOT OF PEOPLE WHO ARE DEAD, AND IT'S WAY TOO MANY TO NAME. I JUST DON'T WANNA GO OUT LIKE CERTAIN PEOPLE DID. I WANT DEATH OF OLD AGE TO KILL ME.

-16-YEAR-OLD BOY

I KNOW WHEN MY COUSIN WAS MURDERED—IN '98 ON NEW YEAR'S EVE. HE WAS MURDERED OR BEAT TO DEATH. THAT AFFECTED ME SERIOUSLY BECAUSE WE WERE REALLY CLOSE FOR THE TIME HE CAME BACK IN MY LIFE AND WAS STRAIGHTENING UP. WE, MEANING MY BROTHERS AND SISTER, LOVED HAVING HIM AROUND. HE TRIED TO DO EVERYTHING HE COULD FOR US. WE LOVED HIM. I COULDN'T BELIEVE WHAT HAPPENED WHEN MY PARENTS TOLD ME. IT'S HARD BRINGING BACK UP ALL THESE FEELINGS. I JUST GOT OVER THIS, AND IT WAS HARD AT FIRST BECAUSE I USED TO ALWAYS BE ABLE TO TALK TO HIM ABOUT ANYTHING. NOW I CAN TALK TO HIM, BUT JUST GET NO ANSWERS BACK.

ANOTHER THING THAT CHANGED MY LIFE WITH VIOLENCE, I THINK I WANNA BE CLOSER TO MY PARENTS BECAUSE OF A STORY I JUST HEARD ABOUT THE #YEAR-OLD KID WHO SHOT HIS MOM AND SET THE HOUSE ON FIRE. THAT WAS JUST ABOUT TWO BLOCKS FROM MY HOUSE. I GOT KINDA SCARED BECAUSE IT'S TOO CLOSE TO HOME. I WAS THINKING HOW CAN SOMEBODY EVER DO THAT TO THEIR MOM. I MEAN, ME AND MY MOM GET IN FIGHTS, BUT NEVER ENOUGH THAT IT MAKES ME WANNA KILL HER. I WOULD NEVER KILL ANYBODY, KNOWING THE PAIN I WENT THROUGH.

-15-YEAR-OLD BOY

VIOLENCE HAS AFFECTED ME FROM A YOUNG AGE. I USED TO WATCH MY EX-STEPFATHER BEAT MY MOM. SINCE THEN I HAVE BEEN REALLY OVER-PROTECTIVE OF MY MOM AND OTHER WOMEN AND CHILDREN. I USED TO GET INTO MANY FIGHTS BECAUSE OF THIS. ONE TIME I HIT THIS GUY WITH A BASEBALL BAT BECAUSE I SAW HIM HIT HIS WIFE. I HAVE NOW CALMED DOWN ABOUT THAT. I STILL KNOW THAT IF I EVER SAW SOMEONE HIT A WOMAN I WOULD STILL SCRAP WITH THEM. WHEN I WAS GROWING UP I LIVED IN A CRAPPY AREA. MANY TIMES I WOULD WATCH SHOOTINGS AND STABBINGS. SINCE THEN I FEEL THE NEED TO CARRY A WEAPON ANYWHERE I GO. I AM NOW OVER THAT BECAUSE I NO LONGER SEEK VIOLENCE. I HAVE BEEN DOING GOOD ABOUT AVOIDING IT. I TRY TO STAY AWAY FROM DRAMA AND KEEP MY SHIT TOGETHER. I HAVE BEEN PLACING MY ANGER IN THE WEIGHTS AND STAYING PRETTY COOL ABOUT IT.

MY VIOLENCE HAS AFFECTED OTHERS BY PLACING ME IN LOCKUPS. SO THAT HURTS MY PARENTS AND OTHER FAMILY. IT HAS AFFECTED VICTIMS MOST LIKELY THE SAME WAY IT HAS AFFECTED MY FAMILY AND ME. IT PROBABLY HAS ENFORCED SOME FEAR IN THE COMMUNITY. THE COPS REACT HARSHLY TO ME. I HAVE LOST SOME FRIENDSHIPS. A COUPLE OF MY GIRLFRIENDS BROKE UP WITH ME BECAUSE THEY WATCHED ME GET INTO FIGHTS.

-17-YEAR-OLD BOY

# boys and their toys



Jon Hallberg, M.D.

On a recent warm summer evening, my wife and I were enjoying quiet conversation with some old college friends. Suddenly, we were interrupted by the sharp sounds of gunfire. Before we could respond, four boys brandishing an array of weapons strode over a small swell in the backyard and commenced to fire upon us. The boys were our collective sons, ages 3, 4, and 6, and their "guns" were nothing more than sticks and croquet mallets.

After a few moments, a ceasefire was called and we asked them what provoked the onslaught. Their response: "You're the bad guys." The three sets of parents exchanged slightly embarrassed, quizzical looks that seemed to say, "Don't look at me!" A quick discussion followed that confirmed our political correctness. None of us let our kids play with guns and none of us own any guns. We don't let our boys play violent video or computer games or watch much television. Yet we know a scene like this is inevitable, just as we know it will repeat itself again and again, despite our best intentions.

Though the scenario was innocuous, I couldn't help but think how little it would take to turn it into something ominous, with very real consequences. What if our boys lived in poverty, on the verge of homelessness? What if they had seen young men lying dead in the alley, the victims of gang violence? What if we lived someplace where war was a fact of daily life? What if we hated our neighbors with a passion that went centuries deep? What if these boys led lives of despondency and loneliness and failure? What if they had access to loaded guns?

Our culture is replete with violent images. By the time our boys are adolescents, they will have witnessed thousands upon thousands of acts of violence through various media and the realities of modern living. But have things really gotten worse? Didn't little boys in the '30s and '40s grow up watching "The Lone Ranger," "Buck Rogers," and newsreels of war in Europe and the Pacific? Has there ever been a time when humans were not exposed to violence? Has there ever been a time when little boys didn't want to imitate, to assimilate the violence seen around them? Little boys get caught up in wars, real and imagined, duels and rescues, pirate plunders, cowboy and Indian conflicts, and shootouts between cops and robbers. When our boys opened fire on us, it was as though something hard-wired were at work. Just as

**A father reflects on his son's fascination with imaginary violence and his own childhood discovery of healing amid war play.**

spiders know to spin their webs and birds instinctively migrate to warmer climes, it seems that little boys are programmed to invent creative ways to inflict violence (whether pretend or real) upon one another.

I am not a prude when it comes to guns or war or imaginary violence. Some of my fondest childhood memories, I'm a little embarrassed to admit, are tied to the pleasure I derived from violent fantasies. Maybe it has something to do with my era. I was born in New Ulm, Minnesota, in 1965, when the war in Vietnam loomed large on the American landscape. My uncle was there by 1967, flying jets for the Marines, taking off from carriers, and performing strategic bombing runs against the Viet Cong. Yet I had no real notion of that. All I knew of the war in the '60s and early '70s was that my uncle sent me cool stuff from his R&R in Australia and Japan, like a toy koala and a camouflaged jumpsuit. He sent tapes that sounded upbeat and full of adventure. I had no idea what it all meant or where he was or what he was doing. For me, the war in Vietnam had nothing to do with body bags and body counts. It seemed more like my uncle was at a very fun, very distant summer camp.

The first time I remember being inspired by violence was after watching "West Side Story" on television around 1972. I loved the choreography and the score, the frenetic intensity of it all. And I loved the toughness of the gang members, their leers and stares, and their cat-like moves. As the credits rolled, I put on a navy blue nylon jacket (the coolest-looking thing I could find), combed my hair back, grabbed my harmonica (the closest thing I had to a switchblade), and went out to find my friends, singing, "Here come the Jets like a bat outta hell. Someone gets in our way, someone won't feel so well!" with as much inflection and meanness as I, at 7, could muster.

Kids today have "Doom" and "Tomb Raider" and "Quest." But I had "Jonny Quest," a kind of kiddie cartoon James Bond. The hero was not a man with a license to kill but an 11-year-old boy who had adventures second to none. The opening of each show, with scenes of incredible bravery and amazing escapes in exotic locales, introduced us to Jonny, Hadji, Dr. Benton Quest, and Roger "Race" Bannon as they confronted frogmen, savages, foreign mercenaries, and demonic speedboats. Gunshots punctuated the brilliant, driving big band score and most of the episodes.

I had guns, too. I owned squirt guns of all colors and sizes—six-shooters (with holsters and plastic bullets) and rapid-cocking rifles from the Sears Wish Book, and cap guns—replicas of police handguns that actually made an explosive sound and issued smoke with each report. We shot at anything and everything. And how I loved the smell of the gunpowder! For me it was like the attraction one might have to the smell of a grandfather's pipe tobacco or leaves burning on a crisp fall day.

In the late summer of 1973, my family moved to Brussels, Belgium. For the next three years my imagination was fired in a new way. Even in that pre–Harry Potter world, I was fascinated by castles and dungeons and battlefields. We lived next to the suburb of Waterloo, scene of Napoleon's great and final defeat at the hands of Wellington in 1815. The administration building of my school, the International School of Brussels, had once been (according to rumor), a Gestapo headquarters. Near my home was a medieval castle, complete with moat, drawbridge, turrets, and torture chamber. Short trips would take us to the Sigfried and Maginot lines, citadels, ruins of monasteries and fortresses, the Black Forest, windmills, and such battle sites as Bastogne and the beaches of Normandy. My mind was filled with imaginary battles, conquests, acts of heroism, and fairy tales.

Living in the midst of so much history, it's probably no surprise that I wanted to recreate war. I would act out my military fantasies in a number of ways. Occasionally, my schoolyard playmates or neighborhood friends and I would recreate little wars. Our uniforms were eerily accurate because of our easy access to real war memorabilia from local flea markets: helmets (German, American, British), gas masks, canteens, packs, medals. Like most of my contemporaries, I owned the boy's version of the Barbie doll: GI Joe. He was fun for a time, but he was an army of one.

# books on boys

The myriad books on raising boys today share a common theme: Boys have unique needs that must be recognized and embraced if they are to grow into healthy, happy men. Here is a sampling. —*the editors*

- "Raising Boys: Why Boys Are Different—And How to Help Them Become Happy and Well-Balanced Men" by Steve Biddulph. Describes characteristics of boys and explains how parents, especially fathers, can help boys become sound, loving, and strong men. Celestial Arts, 1998.

- "Boys into Men: Raising Our African American Teenage Sons" by Nancy Boyd-Franklin, Ph.D., and A.J. Franklin, Ph.D., E.P. Two noted psychologists/parents address the challenges of raising African American teenage boys and offer strategies for combatting the overwhelming influences that can negatively affect these young men. Dutton, 2000.

- "Strong Mothers, Strong Sons: Raising the Next Generation of Men" by Ann F. Caron. The author argues that boys need to achieve interdependence with their mothers rather than separation to become emotionally strong men. Primarily focused on adolescent boys. Henry Holt, 1994.

- "Raising a Son: Parents and the Making of a Healthy Man" by Don and Jeanne Elium. A popular and practical guide to meeting the needs of boys from birth to adolescence. Argues that mothers and fathers play different but essential parenting roles. Beyond Words, 1992.

- "Lost Boys: Why Our Sons Turn Violent and How We Can Save Them" by James Garbarino, Ph.D. A psychologist examines the recent explosion of adolescent violence, identifies children at risk, and offers methods to prevent aggressive behavior. Anchor Books, 2000.

- "Saving Our Sons: Raising Black Children in a Turbulent World" by Marita Golden. A personal account of the challenges of raising an African-American boy in a racially divided and violent world. Doubleday, 1995.

- "The Wonder of Boys: What Parents, Mentors and Educators Can Do to Shape Boys into Exceptional Men" by Michael Gurian. A presentation of the biology, culture, and needs of boys, and advice on how adults can provide the supports boys need. Jeremy P. Tarcher/Putnam, 1996.

- "A Fine Young Man: What Parents, Mentors and Educators Can Do to Shape Adolescent Boys into Exceptional Men" by Michael Gurian. A follow-up to the "Wonder of Boys" that focuses on the needs of adolescents. Jeremy P. Tarcher/Putnam, 1998.

- "Raising Cain: Protecting the Emotional Life of Boys" by Daniel Kindlon and Michael Thompson. A Harvard study on the high rates of aggression, violence, and delinquency in boys. Ballantine, 1999.

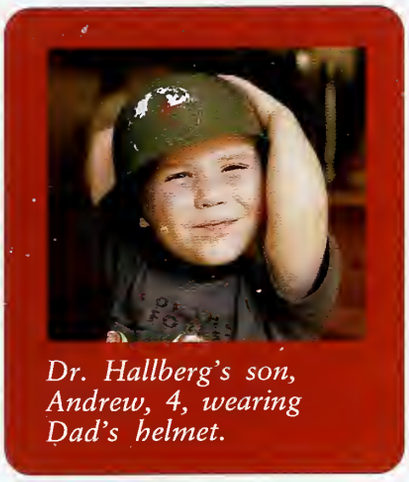
- "Boyhood Daze: An Incomplete Guide to Raising Boys" by Dave Meurer. A humorous account of and reflections on fathering sons. Bethany House, 1999.

- "Boys Will Be Boys: Breaking the Link Between Masculinity and Violence" by Myriam Miedzian. An in-depth study on what the author calls the "masculine mystique"; how sports, popular culture, and parenting shape it; and how it contributes to domestic, criminal, and international violence. Doubleday, 1991.

- "The Trouble with Boys" by Angela Phillips. A guide to raising boys that suggests ways to revise the meaning of masculinity without undermining maleness. Basic Books, 1995.

- "Real Boys: Rescuing Our Sons from the Myths of Boyhood" by William Pollock. The author identifies violence, suicide, and school drop-out rates as signs that boyhood in America is in crisis and proposes social and parental changes to help boys. Random House, 1998.

- "The Courage to Raise Good Men" by Olga Silverstein and Beth Rashbaum. The authors argue that mothers of sons play a key role in changing our cultural expectations for men. They define a good man as both autonomous and connected, and responsible to self, family, friends, and society. Viking Penguin, 1994.



*Dr. Hallberg's son, Andrew, 4, wearing Dad's helmet.*

The best way to make war was with toy soldiers. I owned hundreds. From my New Ulm days I had bags of green plastic soldiers that were flimsy, poorly featured, and easily lost. But I loved them. They fired bazookas, machine guns, submachine guns, rifles, and pistols. They shot from prone, kneeling, and standing positions. A few threw grenades. A few marched. European toy soldiers were, on average, superior in quality. They were available in German, British, American, and Japanese sets, each with characteristic helmets and uniforms. Some had green metal bases and exquisitely painted features.

I also got a French set one year from the Paris department store Printemps. This somewhat fragile set was made from easily broken hard plastic and included beautiful detailing and the usual attacking poses. But this set contained something different: noncombatants. It had two stretcher-bearers, a medic, a wounded soldier, and a tent and truck with red crosses emblazoned on their sides. This was the first time that battlefield injury came to my mind in the context of play. I had known on some level that in battle people were shot and blown up and killed. Seeing "Patton" and "The Battle of the Bulge" and "Ben Hur" and even "Swiss Family Robinson" made me realize this. Yet those injuries seemed somehow valiant, dignified, removed. But now the realities of injury, pain, and death entered my world of play. These realities lay, literally, in my hands. Of the dozens of soldiers in that set, I was drawn most to the little medics.

We moved back to Minnesota in 1976, and sometime around age 13 or 14 I lost interest in guns and war games entirely, about the same time as I discovered girls, sports, TV—and school. An eighth-grade teacher, Mr. Fox, opened the world of biology to me. Suddenly, an exploration of the world within captured my attention. Understanding the ways in which battles were fought inside our bodies seemed more interesting than the large-scale battles fought between us. It was then that I first thought of becoming a physician, a medic without the green uniform—someone devoted to healing. I had simply outgrown a passion that had seemed such a vital part of a healthy, creative, curious childhood—a childhood nourished by creative, curious, loving parents who let their little boy be a boy.

So what are we to do with our young children—our boys, in particular—in this age of Chechnya and Bosnia, of Kosovo and Rwanda? In an age of Columbine and Jonesboro? In an age of Hollywood NRA spokesmen? That our children will shoot one another with sticks, croquet mallets, and squirt guns is a foregone conclusion. How can we avert their eyes from "Pokémon," "Star Wars," "The Matrix," and "Gladiator"? We can't. But we can avoid the crippling language of prejudice and hatred. We can keep guns out of our homes. We can teach mediation skills to our little boys, our little men. We can set examples. We can hope that our boys, like most men, simply outgrow their early fascination with guns.

Me? I'm hoping Hasbro comes out with a line of U.N. Peacekeeping soldiers whose job is a necessary evil, but who never fire a shot in anger or wound anyone. MM

*Jon Hallberg is a physician at the Fairview Nicollet Mall Clinic and the father of Andrew, 4, and Greta, 1 month. Photographs courtesy of Dr. Hallberg.*

## *Write to Us*

Send your comments and critiques to

*Minnesota Medicine,*
3433 Broadway Street NE, Suite 300,
Minneapolis, MN 55413-1761
Email: mm@mnmed.org


**Emergency Medicine Opportunities**

**Emergency Practice Associates** provides quality emergency physician services. Our physicians work as independent contractors in a growth-oriented, physician-supported environment.

***full time opportunities***

| | |
|---|---|
| *GRAND RAPIDS, MN* | **Itasca Medical Center**<br>Medical Director and Staff Physician |
| *HIBBING, MN* | **University Medical Center–Mesabi**<br>Staff Physician |
| *LITTLE FALLS, MN* | **St. Gabriel's Hospital**<br>Medical Director and Staff Physician |
| *NEW ULM, MN* | **New Ulm Medical Center**<br>Medical Director and Staff Physician |

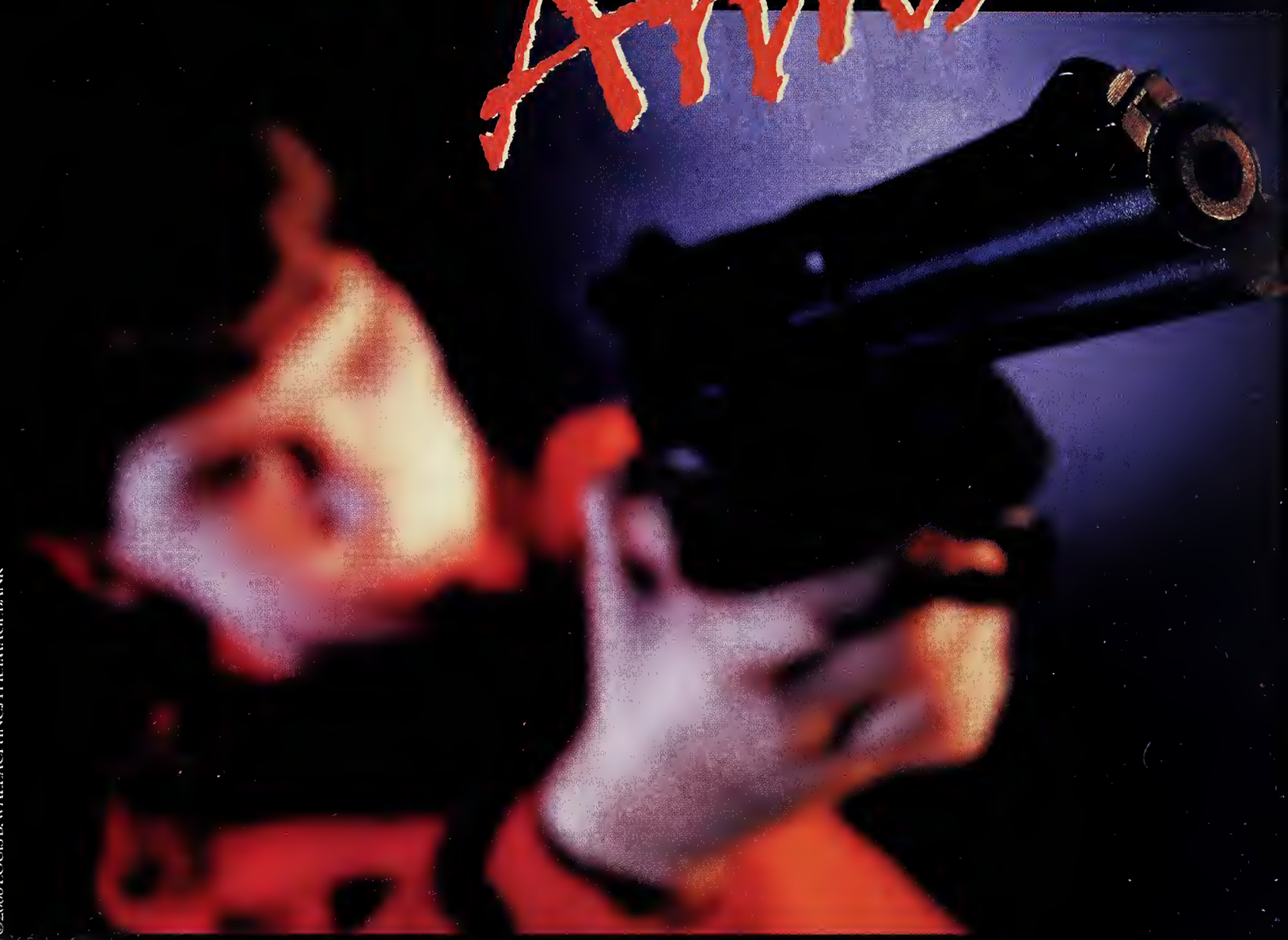
***part time opportunities***

| | |
|---|---|
| *AITKIN, MN* | **Riverwood Health Care Center** |
| *CROSBY, MN* | **Cuyuna Regional Medical Center** |
| *ST. PETER, MN* | **Community Hospital & Health Center** |

EMERGENCY PRACTICE ASSOCIATES
BOX 1260
WATERLOO, IA 50704
FAX: 319-236-3644

**Call the recruiting specialist today at 1-800-458-[illegible]**
www.epamidwest.com

# Babes in Arms



WITH SO MANY FIREARMS CHANGING HANDS THROUGH "STRAW MAN" PURCHASES, BARTER, AND THEFT, CHILDREN CAN EASILY FIND A WAY TO GET A GUN.

©2003 COALITION TO STOP GUN VIOLENCE

# JUVENILE ACCESS TO GUNS IN MINNESOTA

By Sgt. Jeff Rugel

In recent years in Minnesota and throughout the United States, incidents of gun violence involving juveniles have galvanized concerns about kids' access to guns. From high-profile school shootings to accidental shootings that may garner only local attention, the public has become increasingly aware of what happens when juveniles have unsupervised or illicit access to firearms.

Incidents involving kids and guns often prompt the question, "Where did the child get the gun?" The answer can be as varied as the incidents themselves, but most guns that get into the hands of a child get there through the same few routes. This report summarizes the state and federal laws governing juvenile access to firearms, and presents the most common ways that kids obtain guns in Minnesota.

## State and Federal Firearms Laws Pertaining to Juveniles

Most of the federal laws pertaining to firearms, firearms possession, and the use of firearms in criminal activity are in the United States Code, Title 18, Chapters 922 to 924. The laws, which contain hundreds of complex provisions and exceptions, can be summarized as follows.

Under federal law, it is generally illegal for a juvenile to possess any handgun or handgun ammunition. The exceptions to this include kids involved in supervised firearms training or marksmanship practice, employment on a ranch or farm, and hunting. In all cases, the child must have written permission from a parent or legal guardian, or be in the presence of the parent or guardian. Juveniles in the armed services are also exempt while on duty. Possession by juveniles of rifles or shotguns commonly used for sporting or hunting purposes is not federally regulated.

Under federal law, certain weapons are illegal for anyone to possess. These weapons include machine guns, sawed-off shotguns and rifles, destructive devices (bombs), and firearm silencers. Federal law also prohibits licensed firearms dealers from selling any gun or ammunition to a person under 18 and prohibits the sale of handguns and handgun ammunition to persons under 21.

In addition, federal law prohibits the possession or discharge of a firearm on school property or in a school zone, which is defined as an elementary or secondary school and its grounds, and the area within 1,000 feet of the grounds. Exempt persons include the police and persons legally transporting a gun to or from the school for educational purposes, as well as owners of private property within the 1,000-foot school zone, who may possess a gun on their own property.

Minnesota law regarding guns and gun possession by juveniles somewhat mirrors federal law. Minnesota Statutes Chapter 624 begins with a declaration of policy: "It is not the intent of the Legislature to regulate shotguns, rifles, and other long guns of the type commonly used for hunting. ..."

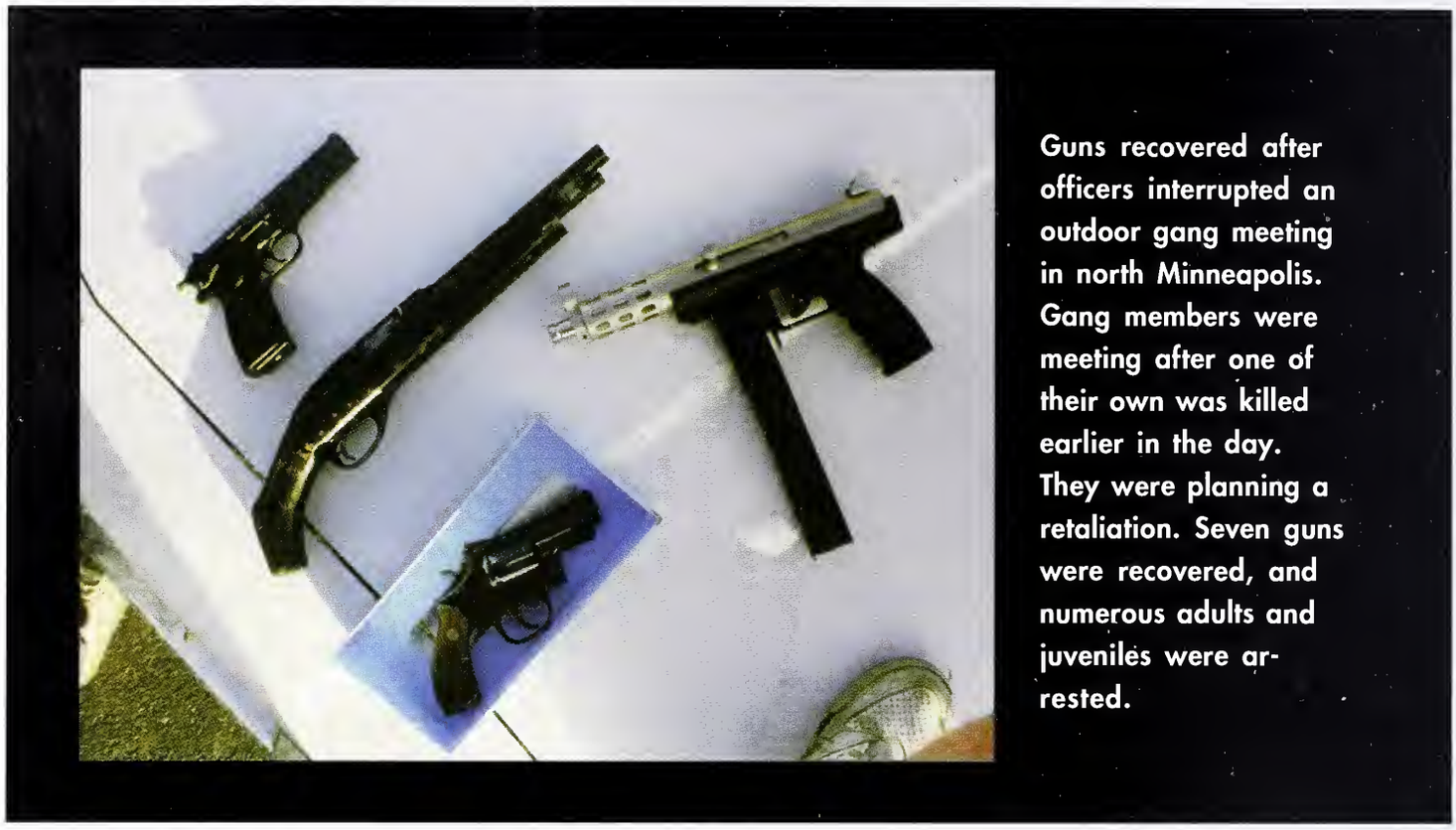
Minnesota law generally classifies guns into either of two groups: rifles and shotguns or pistols and semiautomatic military-style assault weapons. It is illegal for juveniles to possess the latter weapons unless in the presence of their parents, at a range or in a firearms class, or under the auspices and supervision of a recognized military organization. It also is a violation of Minnesota law to knowingly provide a pistol or semiautomatic military-style assault weapon to a juvenile.

Clearly, current laws are designed to allow fairly unrestricted access to long rifles and shotguns, for both juveniles and adults. In a state such as Minnesota, with a long tradition of hunting and rural life, this is not surprising. But when it comes to children obtaining handguns, the legal barriers are numerous. In Minnesota, it is almost always a violation of federal and state laws for a juvenile to purchase or otherwise obtain a handgun or military-style assault weapon. Since these guns are the type most frequently used in violent gun crimes, it is important to learn where kids get them, in order to reduce their availability.

## Handguns: Weapon of Choice in Violent Crimes

In 1999 alone, the Minneapolis Police Department confiscated 1,298 firearms, an average of about 25 per week. A few of those guns were surrendered by people who no longer wanted them around, or were otherwise recovered in noncriminal situations. However, the overwhelming majority were taken from crime scenes or recovered during criminal investigations.

Of those 1,298 guns, about 65% (855) were handguns, 20% (249) were rifles, and 15% (193) were



**Guns recovered after officers interrupted an outdoor gang meeting in north Minneapolis. Gang members were meeting after one of their own was killed earlier in the day. They were planning a retaliation. Seven guns were recovered, and numerous adults and juveniles were arrested.**

shotguns. Most confiscated rifles and shotguns were recovered during the execution of search warrants, usually because they were found in proximity to illegal narcotics. In cases of violent street crime, handguns were by far the most common type of gun recovered.

## *Why Is the Most-Regulated Type of Gun So Easy to Obtain?*

Since juveniles are largely prohibited from legally possessing handguns, they obtain handguns through various illegal means. The routes to juvenile possession include theft, "straw man" purchases, and the purchase or bartering of "street" guns.

### Theft

In the early morning hours of June 8, 1999, burglars drove a stolen truck through the wall of the Gander Mountain sporting goods store in Roseville. Security cameras recorded the crime as the masked burglars moved through the store with drill-team precision, smashing display cases and filling duffle bags with semiautomatic handguns. The thieves were gone in just over one minute, along with 34 guns.

In the past three years more than a dozen similar burglaries have occurred throughout the state, in both urban and rural areas, with suspects driving a stolen vehicle through a store wall, quickly taking high-capacity handguns, and fleeing into the night. Investigators have linked most of these incidents to a few well-organized street gangs that specialize in gun store thefts.

Although gun store burglaries are high-profile crimes that can result in large losses of guns, they account for only a small percentage of the guns stolen in Minnesota each year. Most stolen guns are stolen in residential burglaries. In 1999, more than 1,000 guns were reported stolen in burglaries in Minnesota. Throughout the 1990s, the Minneapolis Police Department received more than 350 stolen gun reports per year, counting only thefts reported to police with accurate make, model, caliber, and serial numbers. In 1998 this number dropped to about 325, and in 1999, to around 250. Hundreds more guns were stolen but not properly reported.

The popular conception of a residential burglar is the black-clad cat burglar, sneaking around at night and silently entering a house to steal. In fact, many burglaries are committed in broad daylight, when residents are away at work and neighborhoods are largely deserted. Juvenile offenders are particularly likely to engage in daytime burglaries, often in the late afternoon between the end of the school day and the end of the workday. Unsecured guns in a house are an inviting target for theft because they are portable and easily concealed, and they always have value on the black market.

While some of the guns stolen in residential burglaries are kept by the thieves for personal use, many are sold on the black market, or traded for drugs or other items. To cover the crime, thieves frequently obliterate the guns' serial numbers or alter them by adding a digit at the beginning or end. Stolen long guns, especially shotguns, are often sawed off to make them easier to conceal. In 1997 in Grand Rapids, gang members used a sawed-off shotgun to shoot and kill a 17-year-old boy who they believed was a police informant. Members of the gang claimed to have gotten the gun from a 32-year-old convicted felon who had been hanging out with the youths.

### Straw man purchases

Under federal law, before purchasing a gun from a licensed dealer, the buyer must complete a Firearms Transaction Record (commonly called a "4473"). Buyers must truthfully provide information such as their name, date of birth, and address, and answer several questions about their criminal history, drug use, and mental health. One of the questions asks, "Are you the actual buyer of the firearm indicated on this form?"

An answer of yes is required for the transaction to proceed. Answering yes to this question with the intent to actually buy the gun for someone else is a "straw man" purchase, a popular way for criminals to obtain guns, as the following example shows.

On July 2, 1996, officers from the Minneapolis Police Department and agents from the Bureau of Alcohol, Tobacco and Firearms were conducting surveillance on Larry Michael Klawitter, a 22-year-old south Minneapolis man. Investigators suspected that Klawitter had been making straw man purchases and turning the guns over to gang members.

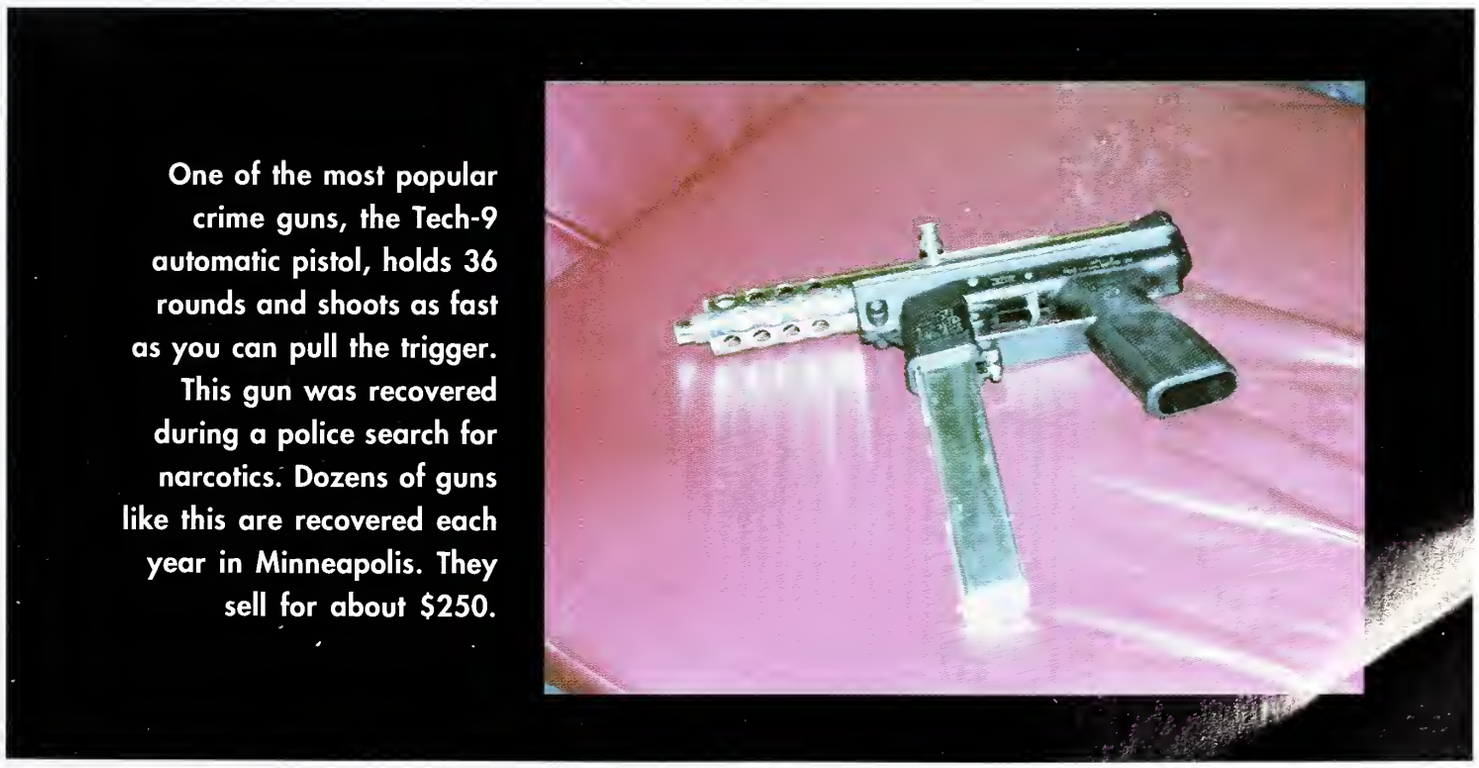
Officers followed Klawitter to a south Minneapolis gun store, where he bought three handguns. Officers then followed him to an address near downtown Minneapolis, where he delivered the guns to a 17-year-old Gangster Disciple gang member. Klawitter and the juvenile were arrested, and the three guns were recovered.

In all, Klawitter purchased 46 handguns in the spring of 1996. He admitted to officers that all the guns he bought he then sold to others, usually for a profit of $50 to $100 per gun. He said he took orders for specific guns from customers unable or unwilling to buy them legally, then filled the orders. Klawitter eventually pled guilty in federal court and was sentenced to 40 months in prison (he was released this spring). To date, only 21 of the 46 guns have been recovered, seized by police on traffic stops and narcotics search warrants, and while investigating reports of a person brandishing a gun. One of the guns Klawitter bought, a .45-caliber pistol, was found by children playing in their yard.

Larry Klawitter was one of dozens of straw man purchasers investigated and prosecuted in Minnesota in the last several years. Cases have involved as few as five guns to as many as 180. Often, the straw man purchaser is a young woman or criminal novice, recruited by a boyfriend or experienced criminal to buy guns that are then sold on the street or turned over to friends. Investigations frequently result in a strong case against the buyer of record—whose name appears on all the paperwork—but little or no evidence against the man behind the scenes.

Federal reporting regulations that apply to licensed gun stores allow investigators to monitor persons who buy multiple guns from one store within a short time. Sophisticated criminals are careful to avoid buying too often from one store, sometimes traveling a circuit around the metro area buying one gun from each store, and then waiting a week or longer before returning to buy more guns. In addition, straw man purchasers often try to cover their tracks by reporting guns stolen. One clear sign of a gun trafficker is the practice of reporting burglaries a couple of times a year and each time reporting several guns stolen.

Unlike gun stores, which are federally licensed and heavily regulated, gun shows allow both licensed dealers and unlicensed "collectors" to display their wares. Collectors are permitted to buy and sell guns as part of their hobby, usually without keeping any sales records. Buyers who shop at gun shows can buy from numerous dealers in one location, often without any paperwork to document



**One of the most popular crime guns, the Tech-9 automatic pistol, holds 36 rounds and shoots as fast as you can pull the trigger. This gun was recovered during a police search for narcotics. Dozens of guns like this are recovered each year in Minneapolis. They sell for about $250.**

the purchase. In recent years gun shows have been criticized for their lack of regulation and for providing an easy way for criminals and gun traffickers to obtain large numbers of firearms for resale on the street.

### Street guns

Stolen guns, guns purchased by straw man buyers, and guns from gun shows all have the chance to join the millions of guns that circulate on the black market and whose provenance is long ago forgotten. These "street guns" are routinely passed from person to person, bought, sold, traded and stolen, and used over and over again in crime after crime until they are recovered by the police or become inoperable. (Even inoperable guns are used in crimes; pointing a gun is often enough to persuade a victim to comply.)



**A search of the home of Sammy Miles, a major drug dealer, turned up this gun case with rifles, a street sweeper and other shotguns, and numerous handguns. He was convicted in federal court of using juveniles in his drug operation.**

In a 1996 search of a crack house in Minneapolis, investigators recovered a .357-caliber revolver stolen from a state trooper's home in Burnsville in 1987. In the absence of any evidence that the operators of the crack house were connected to the original gun theft, this gun was likely passed from person to person for nine years before police took it out of circulation.

That recovery is hardly unique. In fact, most better-quality guns can remain functional for decades with very little care. Just this year, investigators from the Minnesota Gang Strike Force have recovered two WWI German pistols, a 30-year-old .22-caliber rifle, and a 20-year-old sawed-off shotgun, among the dozens of guns taken from gang members.

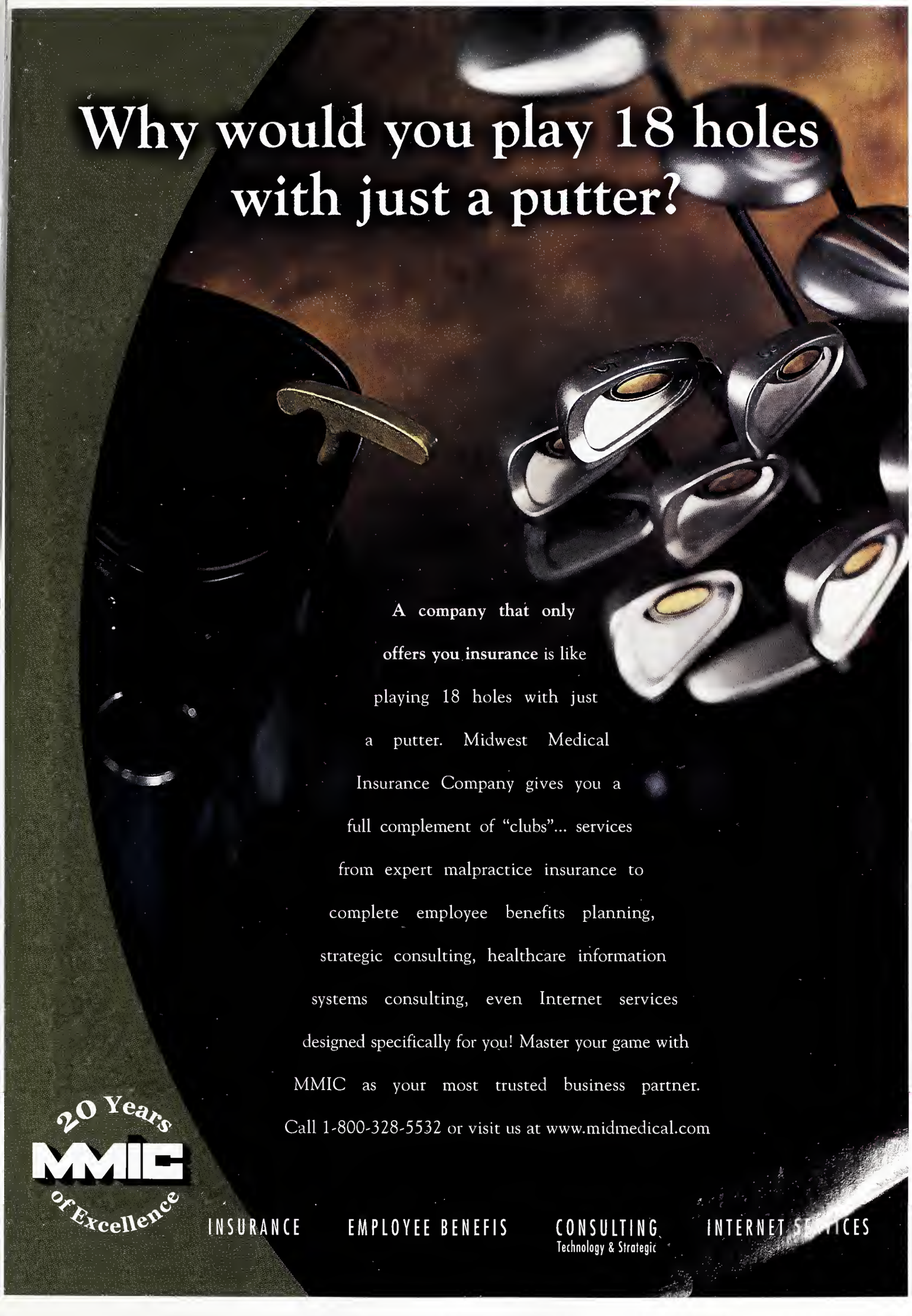
Street guns can sell for as little as $50, while machine guns or exotic weapons can cost thousands of dollars. Guns, especially those taken in residential burglaries, are also frequently bartered for drugs or traded for other guns. High-capacity pistols, assault rifles, and even guns that have been popularized in hit movies are among the more prized firearms. On the street, however, guns known to have been used in crimes lose value, since criminals are wary of being caught with a gun that can be matched to a crime scene with ballistics tests.

A computerized gun-matching system used by police has documented several instances where the same gun was used in multiple crimes that were otherwise unrelated. A few guns have passed through police property rooms multiple times, having been recovered by the police, returned to the owner, and then recovered again. Guns are commonly passed from person to person because they are so easily replaced. Guns have become a disposable tool of the trade for violent criminals, and an easily obtained trophy for kids fascinated by guns and the gun culture.

With so many guns available, it is no wonder that children can get them so easily. In 1999, the Minneapolis Police Department arrested more than 2,800 juveniles at crime scenes where guns were recovered. Not all those kids possessed a gun, but each was in a situation where guns were available. Dozens of other juveniles, especially very young children, were taken into protective custody from scenes where guns were found unsecured and accessible.

Where do juveniles get guns? In Minnesota, with so many firearms in circulation—legally and otherwise—almost any child with a desire to obtain a gun can find one. MM

*Jeff Rugel is a Minneapolis police sergeant and a supervisor with the Minnesota Gang Strike Force (see related article, page 24). Photographs courtesy of the Minnesota Gang Strike Force.*


Why would you play 18 holes with just a putter?
A company that only offers you insurance is like playing 18 holes with just a putter. Midwest Medical Insurance Company gives you a full complement of "clubs"... services from expert malpractice insurance to complete employee benefits planning, strategic consulting, healthcare information systems consulting, even Internet services designed specifically for you! Master your game with MMIC as your most trusted business partner.
Call 1-800-328-5532 or visit us at www.midmedical.com
20 Years of Excellence
MMIC
INSURANCE
EMPLOYEE BENEFITS
CONSULTING
Technology & Strategic
INTERNET SERVICES




PHOTOGRAPH PROVIDED BY THE MINNESOTA GANG STRIKE FORCE

*Graffiti by Grato Gang members*

# Striking Back

*Fifteen years ago gangs were all but unknown in Minnesota. Today, it takes a statewide effort by the Minnesota Gang Strike Force to contain the spread of gang crime and violence.*

**By Cynthia Lehman**

When Minneapolis experienced its first gang-related homicide back in 1985, most people saw it as an aberration, not a warning. The 16-year-old victim, Christine Kreitz, was shot twice in the head by gang members who thought she had betrayed them to the police.

What may have been unclear at the time—even to some law enforcement officials—is chilling in retrospect. In the late 1980s through the mid-1990s, gangs from Chicago and other cities were finding an open market for criminal activities on the streets of Minneapolis. Their influx is now associated with a tide of violence that peaked at 97 homicides in 1995, earning the city the nickname "Murderapolis."

Today, 243 organized gangs are documented in the Minnesota State Pointer System, a statewide database established through an anti-gang initiative of the 1997 Legislature. The Minnesota Gang Strike Force, also created by the Legislature in 1997, was Minnesota's first statewide attempt to repel gang crime and violence. The strike force identifies, investigates, arrests, and prosecutes criminally active gang members, targeting the most violent individuals and those in gang leadership positions.

If any one event jolted Minnesotans into awareness of the presence of gangs and gang violence in the state, it was the 1992 assassination of police officer Jerry Haaf, who was ambushed by members of the Vice Lords while dining in a Minneapolis pizza parlor. Haaf's murder changed public perceptions, says Minnesota Gang Strike Force Commander Ron Ryan, a 32-year veteran of the St. Paul Police Department. "People went from believing we had no gangs, to thinking there was a ridiculously high number," says Ryan. "They also began to understand that people like Sharif Willis [former Vice Lords leader] were not neighborhood activists," he says.

Since mid-1996, however, the crime rates in Minnesota have been falling, thanks in part to aggressive policing and prosecution of gang members. Other

likely contributors to the decline are a smaller juvenile population and a low unemployment rate. Crime patterns in other states show a similar trend.

The strike force, which comprises approximately 70 law enforcement officers throughout the state from all jurisdiction levels, assists local agencies with anti-gang operations, including long-term investigations, surveillance, and prosecution. Those arrested by the strike force are usually entrenched, older gang members, says Ryan. But "older" is a relative term, particularly in reference to street gangs. "Street gang" is often used interchangeably with "youth gang," according to the U.S. Department of Justice, which reports that the vast majority of youth gang members are males between ages 12 and 24. The average age is 17 or 18, and younger members are becoming more common.

A 1998 National Institute of Justice study found that the median age at which youths begin associating with gangs is approximately 13 years. The median age for joining a gang is 14—usually the age when those juveniles are first arrested.

## *Youth Gangs*

The definition of a youth gang varies, but most experts describe it as a group united by mutual interest whose members control a particular geographic territory or enterprise, use symbols in communication, and are collectively involved in crime. Youth gang members commit a disproportionate number of crimes, both violent and nonviolent. And they commit crimes at a rate several times higher than that of juveniles who are not in gangs, a disparity perhaps partly explained by their proclivity for guns and activities such as drug trafficking. Youth gang members are also at higher risk of being victims of crimes—a youth gang member has a 60 times greater chance of being killed than someone in the general population, according to the Justice Department.

Firearms are prevalent in youth gangs. Gangs are more likely to recruit juveniles who own guns, and gang members are more likely than other individuals to carry illegal guns. Although most gang-related homicides are not directly related to drug trafficking—and not all youth gangs are involved in drug sales—illicit drug markets bring rival gang members into contact with one another and increase opportunities for confrontations. Gangs have historically been involved in crime, but drug trafficking has only become a principal gang activity in the past 15 years. In the 1960s and 1970s, gang involvement with drugs consisted mainly of marijuana use, though some used heroin and barbiturates as well.

Gang participation in drug trafficking is consistently linked to the expansion of cocaine markets in the 1980s, as well as the economic restructuring in the 1970s that led to high unemployment in inner cities. Illicit drug markets provided work to individuals who had little chance of obtaining meaningful employment.

Studies disagree on the extent of youth gang violence in recent years. Some experts believe that, except for occasional fights, violent crime by youth gangs was not significant until the 1980s, when crack cocaine became the drug of choice in many inner cities. Other researchers found that gang violence reached its most lethal level in the 1960s and 1970s, a time when media attention was focused on the Vietnam War and civil rights.

## *Gang Identity*

Youth gangs are often classified by ethnicity, and certain types of offenses and organizational structure may be associated with particular groups.

Ryan says the strike force is sensitive to perceptions that it targets minorities and engages in racial profiling. "It is simply a fact that most gangs are broken down along racial lines—whether it's an Asian street gang or a white biker gang," he says. "We try to always emphasize that we are an equal opportunity enforcement agency that targets criminal activity, not color."

Consistent with national trends, Minnesota has seen an increase in Asian gangs, which tend to imitate some of the behavior exhibited by black gang members of 10 to 15 years ago, such as wearing colors, using gang signals, and reacting strongly to real or perceived displays of disrespect. "These groups are often younger and more violent than other gangs," says Ryan. "They mainly commit crimes within their own communities."

Unlike gangs of some other ethnic groups, Asian gangs don't usually retain members for life, says Ryan. "Asian gang members tend to withdraw from the gang lifestyle when they get married and have children."

White gang members typically are in their late teens or early 20s, says Ryan. Black gang members targeted by the strike force are usually in their 20s or 30s, older than the typical Asian gang member, too. Ryan says black gang members seldom wear colors for identification as they did in the past, placing [illegible]e

emphasis on lucrative criminal operations than on territoriality. "Green is their color."

While bi-racial gangs are rare, Ryan says gangs from different ethnic groups are beginning to collaborate for purposes such as obtaining firearms.

Although gangs are largely perceived as a metro-area problem, some of the worst pockets of gang activity are in outstate Minnesota, where industrial or manufacturing jobs draw honest migrant workers as well as less law-abiding hangers-on, says Ryan. "We've arrested Hispanic gang members from the barrios in Texas and California, who were trafficking drugs in Worthington and Willmar," he says. More than a dozen members of the Chicago-based Gangster Disciples were recently arrested for drug trafficking in St. Cloud and Moorhead. And Caucasian gang members in Grand Rapids were the first to be prosecuted under a Minnesota law enacted in 1991 allowing enhanced penalties for crimes committed for the benefit of a gang. "A guy out of prison taught some misfit kids how to behave like a gang," says Ryan. "When they thought some kid was talking to the police, they killed him." Six of them went to prison.

## *Kids at Risk*

Gangs can be very attractive to kids. Gang membership can enhance status among peers and with the opposite sex. It also offers opportunities for excitement and to make money through illegal activities such as selling drugs, and it affords protection from other gangs. Factors such as feelings of social inadequacy or living among a marginalized class also push youth toward gangs, which offer them a sense of identity. Some kids are essentially born into gangs as a result of neighborhood traditions or familial ties.

Most gang members Ryan has contact with come from single-parent homes or otherwise lack solid family lives. "A family breakdown seems to be at the root of this problem," he says, and poverty and community isolation seem to exacerbate the situation. The Justice Department found dozens of risk factors for gang membership, including aspects of a youth's community, family, school, and peer group, as well as individual traits such as aggression, deviant attitudes, precocious sexual activity, and alcohol and drug use.

Because the forces that draw kids into gangs are powerful, adults must intervene in ways that have a real impact on youth. The strike force is involved in initiatives to steer kids away from gangs, such as paying for karate classes for youths who sign contracts to obey certain rules. In addition, it worked with the U.S. Attorney's Office to produce a videotape for seventh-graders on the dangers of gangs and the gang lifestyle. Some strike force members are active in local teen centers and are leaders of Boy Scout troops, and several investigators assist at a camp for at-risk youth sponsored by the U.S. Attorney's Office and the Minnesota National Guard.

Although the main work of the strike force is enforcement, Ryan thinks such efforts to reach out to at-risk youth do help deter gang membership. "It's important to help kids feel they belong," says Ryan. "I believe we are able to touch some people."

In 1999, strike force investigations and prosecution by local county attorneys' offices and the attorney general's office led to 660 arrests and 298 convictions of gang members in Minnesota. In addition to drug-related offenses, the crimes included homicides, drive-by shootings, and criminal sexual assaults. As alarming as these statistics may be, they also highlight the strike force's success in attacking a problem that was foreshadowed 15 years ago by the murder of a teenage girl.

But as long as kids believe joining a gang is their best—or only—option, there will be other victims like Christine Kreitz. MM

*Cynthia Lehman is a writer with the Minnesota Medical Association.*

**Brainerd Medical Center, P.A.**
**2024 South Sixth Street, Brainerd, MN 56401**
**218-828-7105 • www.brainerdclinic.com**

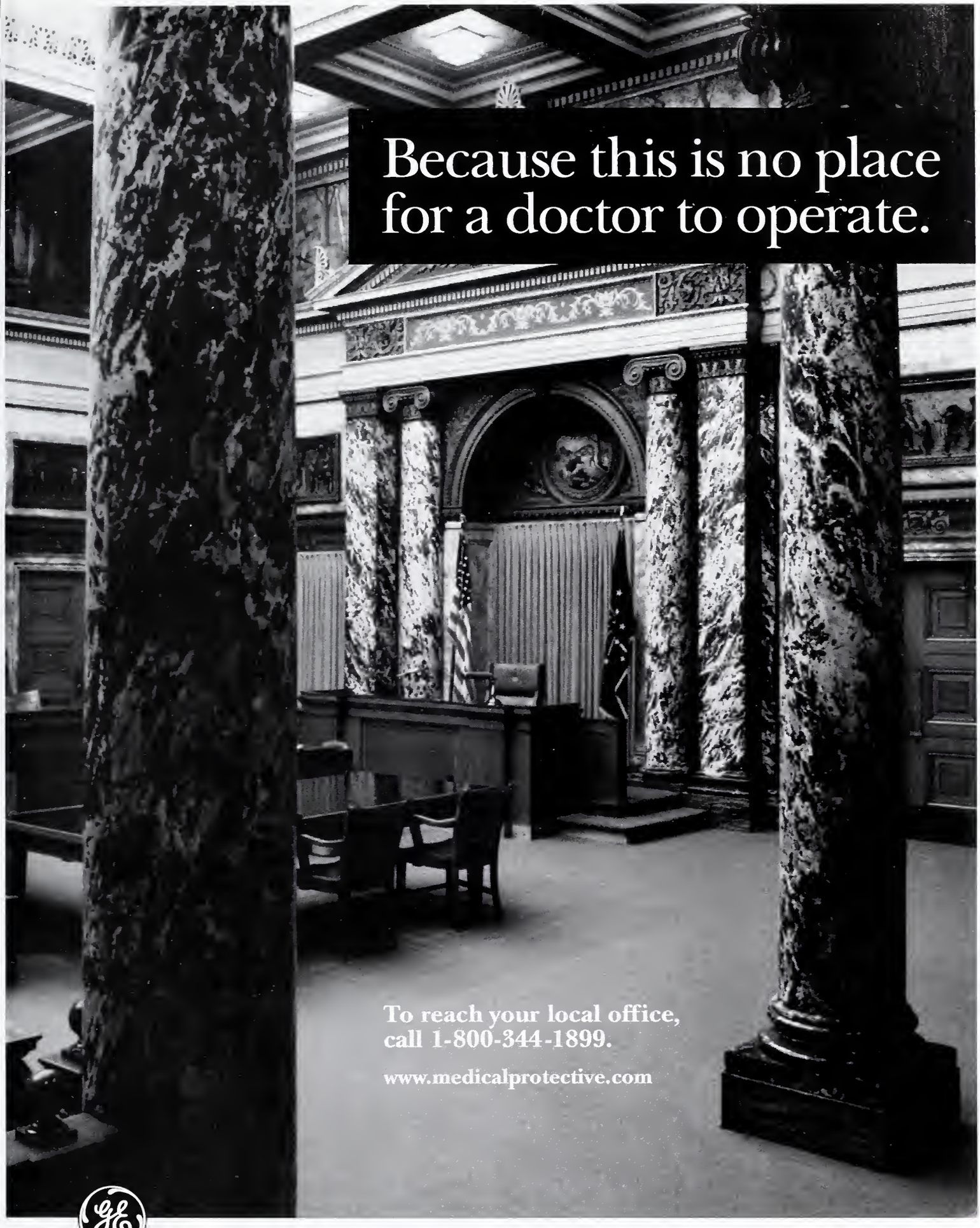
**PEDIATRIC OPPORTUNITY**

**A Pediatric opportunity exists at Brainerd Medical Center. Would you like to live in a premiere vacation area in a community that will meet any family need?**

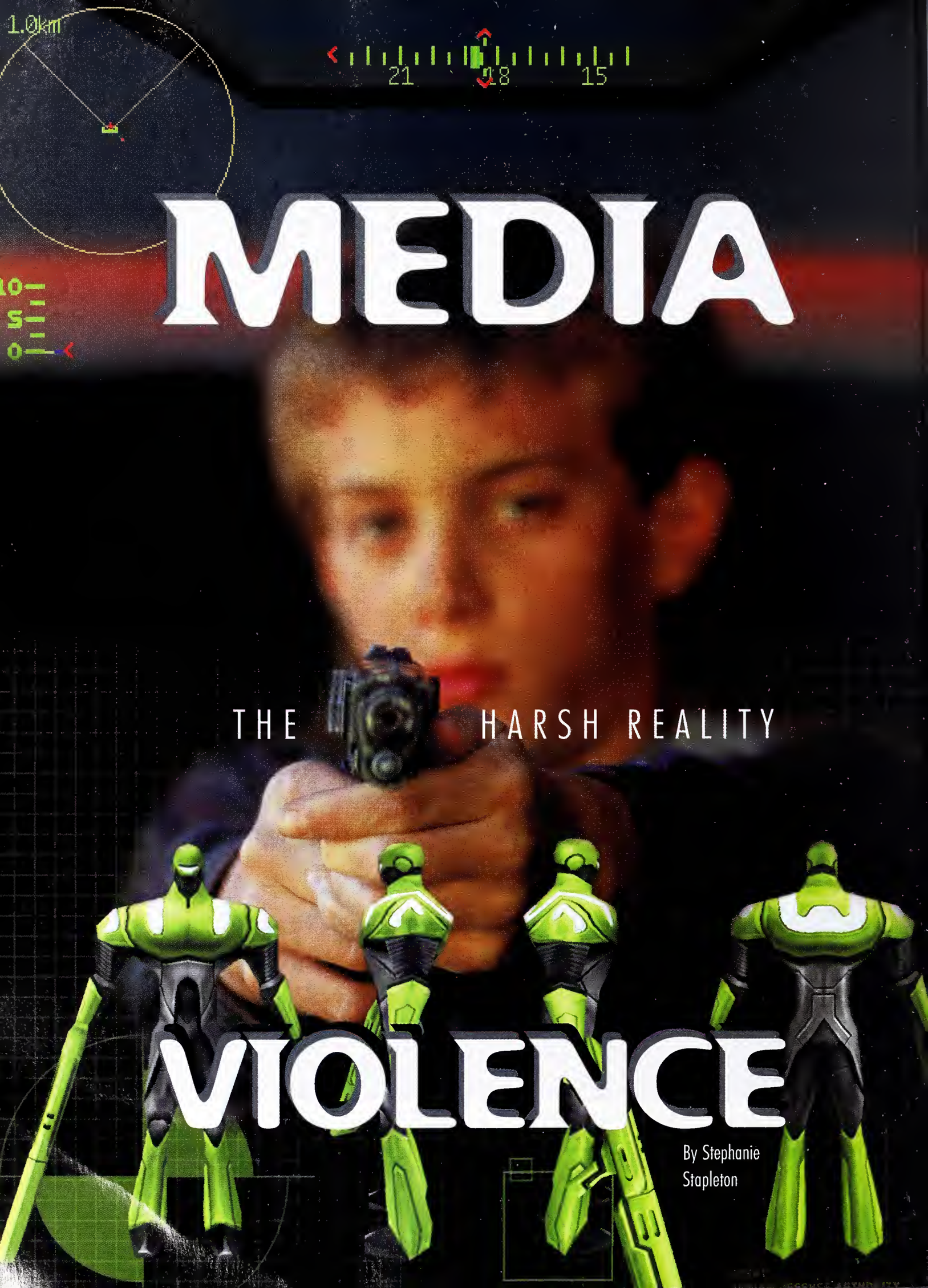
If so, the Brainerd area is just for you! Look at the possibilities our multi-specialty clinic has to offer:

- No primary call
- Four day work week
- General Pediatric practice plus
- Enlarging consultative practice
- Active teaching program for med students and residents
- Excellent Family Practitioners
- Great Nurse Practitioners
- Superior Urgent Care and ER coverage
- Private Catholic hospital will exceed your expectations
- Above average income opportunity

To obtain more infromation about this Pediatric opportunity, please feel free to contact Pediatrician, Dr. Michael V. Severson, or Curt Nielsen, Clinic Administrator at the above address or phone number.




*The Medical Protective Company*®




# MEDIA VIOLENCE

THE HARSH REALITY

By Stephanie Stapleton

**Experts are expanding warnings about the dangers of exposing children to entertainment savagery —including content from interactive computer and video games.**

In an effort to focus renewed attention on what medical experts consider a dangerous mix, members of the public health community last month offered a consensus statement outlining the impact of entertainment violence on children.

The statement, endorsed by the AMA, the American Academy of Pediatrics, the American Psychological Association, and the American Academy of Child and Adolescent Psychiatry, advanced the view that hazards are associated with children's exposure to violence, whether it be on television, in the movies, or a part of computer and video games.

"At this time, well over 1,000 studies—including reports from the surgeon general's office, the National Institute of Mental Health, and numerous studies conducted by leading figures within our medical and public health organizations—point overwhelmingly to a causal connection between media violence and aggressive behavior in some children," said the statement, which was released at a July 26 congressional public health summit.

"Its effects are measurable and long-lasting. Moreover, prolonged viewing of media violence can lead to emotional desensitization toward violence in real life."




## The 'Virtual Violence' Verdict

According to the consensus statement, the average American child spends as much as 28 hours a week watching television. In addition, that same child typically devotes at least an hour a day to playing video games or surfing the Internet. Several more hours each week are occupied by watching movies and videos and listening to music.

Estimates of the combined tally of hours far exceed the time a child spends in school during his or her developmental years.

"Before he or she reaches the age of 18, the average child will witness more than 200,000 acts of violence on television, including 16,000 murders," said AMA Trustee J. Edward Hill, M.D. "The link between media violence and real-life violence has been made by science time and again."

And factoring in the growing reach of interactive entertainment moves the debate to new ground.

"Although less research has been done on the impact of violent interactive entertainment on young people, preliminary studies indicate that the negative impact may be significantly more severe than that wrought by television, movies, or music," according to the joint statement.

Members of Congress welcomed the statement, saying that the public health community's unanimity may help to finally put the debate about the impact of violence to rest. The entertainment industry has long questioned the studies indicating certainty in the negative causal relationship.

"This statement reveals exactly what the consensus of the public health community is: that violent entertainment is a public health hazard," said Sen. Sam Brownback (R, Kansas), who hosted the Capitol Hill summit. "This [idea] has been challenged for some time. But the verdict on virtual violence is in."

## Invigorating the Debate

Physicians and members of Congress at the summit spoke about entertainment violence against a backdrop of placards featuring advertisements for the video game "Sin" and quotes from recording artist Eminem's No. 1 song, "Kill You."

Overall, the objective was to raise awareness about how such entertainment can do harm.

"The purpose of this document is descriptive,

not prescriptive: We seek to lay out a clear picture of the pathological effects of entertainment violence," read the statement. "But we do hope that ... we may encourage greater public and parental awareness of the harms of violent entertainment, and encourage a more honest dialogue about what can be done to enhance the health and well-being of America's children."

The change in public attitudes about tobacco was offered as an example of what should occur.

In 1964, the surgeon general released the first-ever report linking tobacco products with disease, explained Michael Rich, M.D., M.P.H., an instructor of pediatrics at the Harvard Medical School and a member of the academy's committee on public education. It led to a dramatic change in the way society views cigarette smoking, he said.

In 1972, the surgeon general offered a similar statement calling for research on the potent effects of media on young people. "We have done very little in response to the 1972 statement," Rich said.



Lawmakers agreed that more public attention and grassroots action, rather than national legislation, should be the next step. "We are not here to dictate to Hollywood what they can or cannot do. I do not believe that is the role, or the right, of Congress," said Brownback. "But the public has a right to know the truth about the public health risks and dangers of exposing their children to violent entertainment."

Some local jurisdictions have begun responding.

In Indianapolis, a city ordinance restricting children's games in arcades was passed in early July. Unless it was challenged in court, the measure was to take effect September 1. The approach could become a model for community activism across the country, said Rep. Tim Roemer (R, Indiana).

Meanwhile, the physician groups also clearly indicated that the problems of violence in society go beyond the influence of entertainment.

"We in no way mean to imply that entertainment violence is the sole, or even necessarily the most important, factor contributing to youth aggression, antisocial attitudes and violence," asserted the statement.

According to Hill, this is a primary message.

"The media issue is a vitally important part, but only one part of the violence problem," he said. A range of players, from local governments and school systems to parents, state governments, and Congress, have a role in addressing the problem. "None of them are doing well. What we want to see happen now is the [emergence] of a critical mass to begin changing public policy." **MM**

*Reprinted with permission from "Media Violence* Is *Harmful to Kids—and to Public Health."* American Medical News *2000;43:36,41.* © *2000 American Medical Association.*

## THE REAL-LIFE IMPACT OF VIRTUAL VIOLENCE

The effect of violent entertainment on children is complex and can present in various forms.

- Children who see a lot of violence are more likely to view violence as an effective way of settling conflicts. Children exposed to violence are more likely to assume that acts of violence are acceptable behavior.
- Viewing violence can lead to emotional desensitization toward violence in real life. It can decrease the likelihood that one will take action on behalf of a victim when violence occurs.
- Entertainment violence feeds a perception that the world is a violent and mean place. Viewing violence increases fear of becoming a victim of violence, with a resultant increase in self-protective behaviors and a mistrust of others.
- Viewing violence may lead to real-life violence. Children exposed to violent programming at a young age have a higher tendency for violent and aggressive behavior later in life than children who are not so exposed.

Source: "Joint Statement on the Impact of Entertainment Violence on Children," advanced by the American Academy of Pediatrics, American Academy of Child and Adolescent Psychiatry, American Medical Association, and American Psychological Association.

STOP HERE

YOU NAME IT–WE CAN MAKE IT!

- ◆ Bioidentical Natural Hormone Replacement Therapy
- ◆ Alternative routes of administration
- ◆ Discontinued or hard to find medications
- ◆ Custom dose and dosage form
- ◆ Solutions for unique medical problems
- ◆ Achilles Express Bone Density Testing

We are your "Problem Solving" Specialist!

*Custom-Rx Compounding Pharmacy*

Verne Betlach R.Ph. FIACP

Richfield Professional Building

6519 Nicollet Ave. S, Ste. 201

612-866-2211 fx 612-866-9217

ASPEN Medical Group

Aspen Medical Group is a 160+ provider multi-specialty group with 9 clinics located throughout the Minneapolis / St. Paul metro area. We are currently seeking BE/BC physicians for the following specialties:

*Dermatology*
*Hospitalist*
*Internal Medicine*
*Urgent Care*

Aspen Medical Group is governed by its own physicians and health care providers. Guaranteed base salary available for the first two years. Competitive benefits package.

For further information, please contact:

Nancy Borgstrom, Provider Services Coordinator
1020 Bandana Boulevard West
Saint Paul, MN 55108
phone 651-641-7081 • fax 651-641-7151
e-mail nborgstr@aspenmed.org

EOE. No J-1 opportunities available.

## The best of both — A place to practice. A place to live.

Owatonna Clinic offers physicians local practice autonomy and access to Mayo Clinic's expertise in clinical medicine, education and research.

Opportunities to join our team are available in:

- Dermatology
- Family Medicine
- Internal Medicine
- Obstetrics and Gynecology
- Orthopedic Surgery

To learn more about our wonderful city and clinic, visit us at owtclinic.org

**Contact David Berg at 507-455-4441 or berg.david2@mayo.edu**

Owatonna Clinic
*Mayo Health System*

Ridgeview CLINICS

**Ridgeview Clinics,** a mid-size primary care group of clinics located in the western metro area, is offering opportunities for:

**Family Practitioners** *(OB optional)*
**Internal Medicine Specialists**

These clinics have providers specializing in family practice-OB, internal medicine, occupational medicine and podiatry.

Ridgeview Clinics are affiliated with an independent, financially sound, 109-bed regional medical center in Waconia, Minnesota, with more than 200 physicians in 34 specialties.

Located in the southwest metro just minutes from Minneapolis/St. Paul, the area offers four-season recreational opportunities, top-rated schools and dynamic, growing communities.

Ridgeview Clinics offer a production-based compensation package including a competitive salary and full benefits.

Please mail, fax or e-mail cover letter and C.V. to:

**Jon Rauen**
**Ridgeview Clinics**
**470 West 78th Street**
**Chanhassen, MN 55317**
**phone: 952/934-0570**
**fax: 952/906-7894**
**email: jon. rauen@ridgeviewmedica .g**

EOE/AA

# CME @ HCMC

**Hennepin County Medical Center (HCMC) is one of the major teaching hospitals in Minnesota. Continuing Medical Education (CME), formerly known as the Office of Academic Affairs, was established at HCMC in 1983.**

The mission of HCMC's CME Program is: "to provide organized, planned education activities to help physicians improve delivery of medical care."

## ACCREDITATION

Hennepin County Medical Center is accredited by the Minnesota Medical Association (MMA) to sponsor Continuing Medical Education for physicians.

Hennepin County Medical Center designates hour-per-hour credit hours in category 1 of the Physician's Recognition Award of the American Medical Association.

## FOR MORE INFORMATION

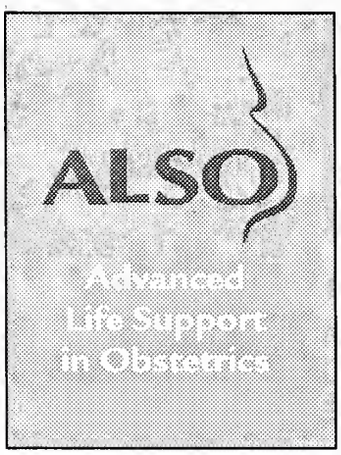
We would like to hear your comments and suggestions for future CME activites!

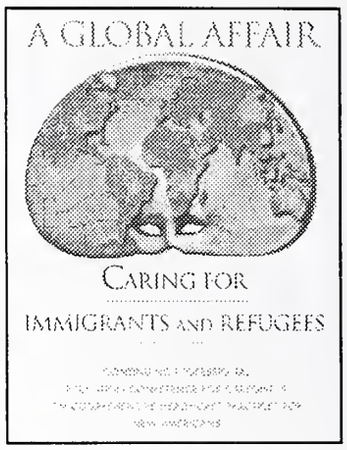
**Hennepin County Medical Center**
Continuing Medical Education
701 Park Avenue, Mail Code 861-B
Minneapolis, Minnesota 55415-1829

612-347-2075 Fax: 612-904-4210
Toll Free: 888-263-4262
Email: robin.hoppenrath@co.hennepin.mn.us

## EMS CERTIFICATION COURSES

Emergency Medical Services offers numerous courses throughout the year. To request a listing of classes or a course brochure, please call 612-347-5681. Visit the EMS Website at www.HCMC.org/DEPTS/EM/EMSED.




# FALL 2000

## CONFERENCES:

**September 15-16**
Advanced Life Support in Obstetrics

**October 5-6**
Annual Forensic Science Seminar

**October 6**
Electrocardiography for Primary Care Physicians

**November 2-4**
Annual Orthopaedic and Trauma Seminar

**November 3**
A Global Affair: Caring for Immigrants and Refugees

**November 10**
Annual Minneapolis/St. Paul Diabetes Forum

**December 8**
Ninth Annual Family Practice Update

Hennepin County Medical Center
HCMC
Level 1 Trauma Center

## ANNOUNCEMENTS



### EPEC Training Offered

A two-day seminar on Education for Physicians on End-of-Life Care (EPEC) will be offered October 13 and 14 at the Arrowwood—a Radisson resort—in Alexandria. For more information, call Education Services, Douglas County Hospital at 320/762-6094.

### HIPAA Finalizes Electronic Data Standards

The Department of Health and Human Services (HHS) has published the final rule on standard formats—under authority of the Health Insurance Portability and Accountability Act of 1996 (HIPAA)—to streamline health care claims processing. Providers conducting electronic transactions must use the standards. Health plans are also required to accept these standards.

HHS plans to issue further HIPAA administrative simplification regulations later this year.

# MMA Participates in Patient Safety Roundtable Discussion

The September issue of *Minnesota Physician* will include the transcript from a recent Minnesota Health Care Roundtable discussion about medical errors, sponsored by Minnesota Physician Publishing.

Paul S. Sanders, M.D., Minnesota Medical Association CEO, joined leaders of other health care stakeholder groups to discuss patient safety—an issue that has received national attention since the November 1999 publication of the Institute of Medicine's (IOM) "To Err is Human" report on the widespread occurrence of medical errors.

> "The time crunch factor is very real. Whether it's a doctor, nurse, or pharmacist—getting rushed while doing clinical duties is fertile ground for errors."
>
> *Paul S. Sanders, M.D., MMA CEO*

The panel discussion, which also included representatives from the Minnesota Department of Health, Minnesota Nurses Association, Midwest Medical Insurance Company, Minnesota Hospital and HealthCare Partnership (MHHP), PreferredOne, Medifor, Inc., 3M, and Buyers Health Care Action Group, encouraged health care leaders to define issues surrounding patient safety, examine the causes of medical errors, and consider ideas for improving safety in the health care system.

Medical errors are seldom isolated events in which a practitioner's mistake causes injury to a patient, according to Sanders. "A medical error is most often the result of something that breaks down in the system," he says.

In defining "medical error," the panelists generally agreed that near misses, such as medical interventions that are planned or implemented incorrectly, but in which the patient sustains no injury, should be counted along with events that lead to patient injuries.

From their health care industry perspectives, participants identified the most common causes of medical errors and described what they believe is wrong with the current health care system.

Jill Egan, Minnesota Hospital and HealthCare Partnership COO, says it is difficult to identify and correct problem areas in the health care system because "it is a culture where excellence is demanded and expected." Admissions of error carry stigma as well as legal risk, she says.

Elizabeth Lincoln, Midwest Medical Insurance Company vice president, says in handling malpractice claims, she receives detailed information about medical errors. She says many medical mistakes seem to result from communication breakdowns among providers, inadequate instructions regarding care—both among providers and from providers to patients, and patient noncompliance.

"The time crunch factor is very real," says Sanders. "Whether it's a doctor, nurse, or pharmacist—getting

*ROUNDTABLE cont. on page 35*

# VIEWPOINT

*John M. Van Etta, M.D.*
*MMA President*



## MMA Physicians Work for Community, Families, Patients

As my term as Minnesota Medical Association president draws to a close, I prepare to welcome MMA Annual Meeting delegates to Duluth, my home town, an area of abundant natural resources, hard working people, and a tertiary health care community. Once again delegates gather to set policies to benefit our profession and our patients.

This past year, it was my privilege to meet with my colleagues in Virginia, International Falls, Roseau, Thief River Falls, Warroad, Crookston, Bemidji, Grand Rapids, Duluth, Minneapolis, Marshall, Windom, Jackson, Worthington, Chisholm, and Hibbing. I spoke on your behalf to component societies, specialty societies, the Minnesota Board of Medical Practice, legislators, the Minnesota Council of Health Plans, Allina, and Blue Cross and Blue Shield.

As MMA president, I realized how much the MMA does on our behalf. This year, the MMA raised the question: "Is it good medicine?" to focus health care debates on the key issue—how a policy or course of action will affect our patients. We will continue to ask this question. At the Capitol, the MMA succeeded in passing a prompt pay bill and a ban on contract stacking, and defeated a bill that would have weakened tort reforms for medical negligence cases. I was particularly proud of the MMA's strong support for the lawsuit against the Department of Health and Human Services over discriminatory Medicare reimbursement rates. Through our membership in the Medicare Justice Coalition, our affidavit, our amicus curiae brief, and our "Is it good medicine?" advertising campaign, we helped draw attention to the blatant unfairness of Medicare reimbursement.

The MMA is a respected source of information for the public. This year, we told Minnesotans about the risks of hockey checking, the safety of irradiated meat, the health impact of second-hand smoke, and the danger of driving while sleepy. We spearheaded an effort to stimulate public debate on kids, guns, and media violence.

Our membership is our source of strength. To ensure that the MMA is responding to physicians' needs, we launched Initiative 2000, asking physicians to define the issues the MMA must address through the year 2001 in order to remain an effective advocate for physicians and their patients. Topping the priority list were repeal of the sick tax, contracting and health plan relationships, patient protection and safety, MMA structure and governance, medical education, and health care access and affordability. This data will guide us as we continue to advocate for physicians and their patients.

I feel privileged to have represented our revered profession. It is clearer to me than ever that we need a strong state organization with component, specialty, and member input to preserve the professionalism of medicine. As a unified organization, we have a place at the table when health care decisions are made. Working together, we can effect positive change for each other, our community, our families, and our patients. Our views are sought and respected.

I have many people to thank, most of all my wife, Dr. Linda Van Etta, and my daughter, Kathryn, whose emotional and intellectual support have made this a successful year for me. I am also grateful to the MMA staff who were always there when they were needed. Their hard work makes us look good. ■

*ROUNDTABLE from p. 33*

rushed while doing clinical duties is fertile ground for errors," he says.

Members of the panel also named a shortage of nurses and other health care employees, too much reliance on the fallible human memory, complexity of the health care system, and patient reluctance to ask questions as conditions in the health care system that contribute to medical errors.

On the issue of medical error reporting and use of collected data, nearly all participants felt strongly that information must not be individually identifiable. The question of whether medical error reporting should be mandatory generated debate among roundtable participants.

Sanders says mandatory reporting systems could lead to people reporting "what they have to," rather than providing all information that might be useful.

Participants shared views on how the health care industry can become less of a "culture of blame."

"Blame is one way people who have been harmed get vindication," says Johnston. "We need to find other things that can fill those needs. Blame prevents the flow of information."

Sanders says some positive developments are already having an impact on patient safety and reversing the effects of blame. The MMA and MHHP formed a patient safety work group in March with other health care stakeholders to consider responses to the IOM report findings. The Department of Health is also leading a work group, in which the MMA is a participant, to help organizations share information and ideas about patient safety.

"We can work on the problem without having all the answers," says Sanders.

# Attend MMA Cultural Competence Seminars

As Minnesota's population becomes more ethnically and racially diverse, physicians will encounter a widening array of beliefs, values, customs, and languages among their patients. Some of these will be unfamiliar.

Physicians who increase their understanding and awareness of the cultures they serve, can minimize unintended barriers to care, according to Wendy O'Donnell, MMA minority health coordinator. "With the number of different cultures we have in Minnesota, 'cultural competence' has an impact on both health care access and quality," she says.

To assist health care providers to better understand culturally competent health care, the Minnesota Medical Association is offering training on issues related to cultural factors and the practice of medicine. Cultural factors can affect many aspects of health care, including establishment of a trusting physician-patient relationship, patients' willingness to disclose information, and compliance with prescribed treatment.

The first session of the two-part seminars—to be held in Rochester and the Twin Cities—will be an overview of national standards for assuring cultural competence in health care, developed by the federal Department of Health and Human Services Office of Minority Health. "This session will work on defining cultural competence, exploring why it is important to health care providers, and how physicians can minimize cultural barriers in their practices," says O'Donnell.

The second session will focus specifically on the culture of the Somali people—one of the largest immigrant populations in Minnesota.

O'Donnell says some Somali customs need to be understood and appreciated in order to provide the most appropriate care. She cautions that among the Somali people—and all groups—there are also variations among subpopulations.

Recent immigrants, members of ethnic minority groups, and people who don't frequently visit large health care settings may find the physical structure of the health care system intimidating and become reluctant to access care, says O'Donnell. "Many immigrants are apprehensive about the size of hospitals and clinics, the paperwork they are expected to complete, and the use of medical terminology they may not understand," she says. "First, we need to look at how to get these people into the health care system," says O'Donnell. "Then we need to help them navigate it, so outcomes reflect the best possible care," she says.

Session one, "Culturally Appropriate Health Care," will be held October 19 in Rochester and October 26 in the Twin Cities. Session two, "Focus on the Somali Patient," will be held January 9 in Rochester and January 26 in the Twin Cities.

The MMA designates this educational activity for a maximum of 2 hours per session in category 1 continuing medical education credit toward the AMA Physician's Recognition Award.

For more information, or to register, please call Vicki Westling at 612/362-3764 or 800/342-5662.

# 2000 MMA House of Delegates Resolution Summary

The 2000 Minnesota Medical Association House of Delegates will convene at the Duluth Entertainment and Convention Center on September 13 through 15 to take action on resolutions that will set the MMA's course for the coming year. As *News & Views* goes to press, the following resolutions have been submitted.

### Res. 100, Amendments to the MMA Bylaws

Introduced by the MMA Board of Trustees

Resolves that the MMA adopt amendments to clarify language to the MMA Bylaws.

### Res. 101, Employer Compensation to Physicians for Time to Acquire CME

Introduced by Ramsey Medical Society (RMS)

Resolves that the MMA endorse the concept that employers allow adequate time and funding for their employed physicians to acquire continuing medical education (CME) hours. It further calls on the MMA to survey employed physicians to determine the scope of the problem regarding time and funding for CME.

### Res. 102, Creation of a Citizens' Advisory Council

Introduced by RMS and Hennepin Medical Society (HMS)

Resolves that the MMA create a Citizens' Advisory Council to better understand the problems of individual citizens and better serve the interests of patients and the public.

### Res. 103, MMA Support for Patient Advocacy, Alliances, and Education

Introduced by HMS

Resolves that the MMA create an alliance with Minnesota citizens to increase public awareness and support for the association's goals, create alliances with patients who support the MMA mission and strategic goals, and support organizations that adhere to the MMA mission and strategic goals. It further calls on the MMA to ask the MMA Alliance to engage in patient education about the physician-patient relationship and problems patients encounter with the health care system.

### Res. 104, Conflict of Interest Policy

Introduced by HMS and RMS

Resolves that the MMA Board of Trustees develop a conflict of interest policy, regarding members' competing professional/financial interests and their roles and responsibilities as voting members of MMA committees, to be presented to the MMA House of Delegates for discussion and approval in 2001.

### Res. 105, MMA Dues and 2001 MMA Budget

Introduced by MMA Board of Trustees

Resolves that the MMA maintain 2001 membership dues at the 2000 level and approve the proposed 2001 MMA Operations Budget and the proposed 2001 MMA Capital Budget.

### Res. 200, LPN Scope of Practice

Introduced by Minnesota Academy of Family Physicians

Resolves that the MMA consider drafting legislation to amend Minnesota Statute 151.37 Subd. 2(a), the Pharmacy Act, to allow physicians to direct a licensed practical nurse (LPN) or medical assistant to administer legend drugs under practice guidelines or protocols. It also calls on the MMA to explore avenues to ensure that physicians and clinics may continue to employ LPNs and train them to follow physician-written practice-based protocols without exposing the LPNs or their registered nurse supervisors to regulatory action for performing the functions of their physician-defined job descriptions.

### Res. 201, Opposition to State Preemption of Local Ordinances Regulating Tobacco

Introduced by RMS

Resolves that the MMA oppose attempts by the Minnesota Legislature to adopt state law that preempts local ordinances regulating the sale and use of tobacco.

### Res. 202, Opposition to State Preemption of Local Ordinances Regulating Firearms

Introduced by RMS

Resolves that the MMA seek to change current Minnesota law that preempts local ordinances regulating sale and use of firearms.

### Res. 203, Repeal of the Provider Tax

Introduced by RMS

Resolves that the MMA continue to endorse and lobby for repeal of the 2 percent provider tax, giving this high priority at the next legislative session.

**Res. 204, Study of the Pricing of Prescription Drugs**

Introduced by RMS

Resolves that the MMA urge the Minnesota congressional delegation to continue investigating the pricing structure of the pharmaceutical industry. It further resolves that the MMA ask the AMA to study regulation of prescription drug pricing and to make a report to the AMA House of Delegates.

**Res. 205, Study of Minnesota Senior Drug Program**

Introduced by RMS

Resolves that the MMA study the Senior Drug Program to determine whether the program meets seniors' needs for access to affordable prescription drugs and that the MMA issue a report with recommendations for improvements to the program.

**Res. 206, Osteoporosis and Densitometry**

Introduced by RMS

Resolves that the MMA establish policy recognizing osteoporosis as a major health problem in our state and recognizing clinical densitometry as a field of medicine to be practiced only by physicians who are certified clinical densitometrists (CCDs). It also calls on the MMA to create awareness of osteoporosis and restrict clinical densitometry practice to licensed physicians in our state.

**Res. 207, Support the Funding Base of the University of Minnesota Medical School**

Introduced by RMS

Resolves that the MMA develop a vigorous, proactive campaign to support University of Minnesota Medical School efforts to receive an expanded and secure funding base.

**Res. 208, MMA's Support of Minnesota's Three Academic Medical Centers**

Introduced by Peter C. Amadio, M.D., delegate, Zumbro Valley Medical Society

Resolves that the MMA strongly support state initiatives and advocacy for educational activities of academic medical centers. It also calls on the MMA to oppose restrictions on direct appropriation of funds to academic medical centers and other research entities for disease-specific research initiatives and to work with the Minnesota Department of Health (MDH) and the Medical Education Research Advisory Committee to create a state policy to use scientific peer review for any legislative decision to fund research initiatives.

**Res. 209, Coordination of Clinic Surveys and Chart Audits**

Introduced by HMS

Resolves that the MMA form a task force to work with health plans, the MDH, and accrediting agencies to find a mechanism to reduce the intrusion and cost of duplicative surveys and audits.

**Res. 210, Smoke-Free Restaurants and Bars**

Introduced by Zumbro Valley Medical Society

Resolves that the MMA endorse elimination of secondhand smoke in all restaurants and bars in the 11 counties of southeastern Minnesota and encourage the MDH and county health departments to require that restaurants and bars designate on license applications whether they are smoke-free work sites. It also calls on the MMA to support passage of local, county, and state ordinances prohibiting smoking in restaurants and bars.

**Res. 300, Opposing the Carveout of Mental Health and Chemical Dependency Benefits**

Introduced by HMS and Minnesota Psychiatric Society

Resolves that the MMA adopt a policy of opposing the carving out of psychiatric and chemical dependency treatment from general medical care in health insurance and managed care programs.

**Res. 301, Mercury**

Introduced by Lake Superior Medical Society

Resolves that the MMA recommend proper disposal of mercury-containing medical equipment and replacement of mercury-containing medical equipment with mercury-free alternatives. It further resolves that the MMA call on the AMA to recommend proper disposal and replacement of mercury-containing medical equipment.

**Res. 302, Reimbursement for Processing Formulary Changes**

Introduced by Minnesota Academy of Family Physicians

Resolves that the MMA work with insurance companies to develop appropriate billing codes to reimburse physicians for processing prescription changes due to formulary changes.

**Res. 303, MMA to Cosponsor a Community Conference to Discuss: What Comes After Managed Care?**

Introduced by RMS and HMS

Resolves that the MMA, in cooperation with other interested parties, produce a conference devoted to discussing and recommending action regarding the next generation of health care delivery and financing systems.

**Res. 304, Improved Reimbursements for Blood Products and Blood Safety**

Introduced by RMS

Resolves that the MMA ask the AMA to study reimbursement to hospitals for services related to blood products and blood safety. It further resolves that, if the study finds a disparity between blood products and blood safety costs and reimbursement to hospitals, that the MMA request that the AMA advocate for adjustments to the Health Care Financing Administration (HCFA) reimbursement mechanism for blood products and blood safety.

**Res. 305, AMA Study of National Health Systems**

Introduced by RMS

Resolves that the MMA ask the AMA to study and issue a report on the health care systems of Canada, England, Germany, Norway, and Sweden with respect to costs, waiting time for elective procedures, who pays for care, and emergence of private physician practices and hospitals. It further resolves that the MMA ask that the AMA develop a national health care system model for the United States with features designed to address unique aspects of health care in this country.

**Res. 306, Prohibit Global Risk Sharing Contracts between Providers and Health Plans**

Introduced by RMS and HMS

Resolves that the MMA lobby the state Legislature to amend laws governing health plans to remove all provisions that permit physicians to enter into global risk sharing contracts with health plans for services other than their own. It further resolves that the MMA ask the AMA to lobby Congress to amend laws governing health plans to remove all provisions of law that permit physicians to enter into global risk sharing contracts with health plans for services other than their own.

**Res. 307, Obesity Epidemic**

Introduced by RMS

Resolves that the MMA recognize obesity as an epidemic. It also calls on the MMA to study ways to play a leadership role in informing Minnesota citizens about the epidemic of obesity, and to review existing AMA policy regarding obesity, and either endorse current policy or sponsor new AMA policy to deal with the epidemic of obesity.

**Res. 308, Lack of Coverage for Obesity and Related Conditions**

Introduced by RMS

Resolves that the MMA introduce legislation to secure adequate reimbursement to physicians for the care of patients with obesity and for prescribed medications. It also calls on the MMA to review existing AMA policy regarding coverage for obesity services, and either endorse current policy or introduce policy to secure adequate coverage for the epidemic of obesity.

**Res. 309, Patient Protection in Utilization Review of Psychotherapy Review**

Introduced by HMS and Minnesota Psychiatric Society

Resolves that the MMA develop and advocate for state legislation prohibiting utilization review organizations, health plans, or insurance plans from requiring disclosure of psychotherapy case notes as a condition of medical necessity review or insurance reimbursement.

**Res. 310, Plans Pay for Out-of-Network Physicians but Not Always Their Rx**

Introduced by HMS and Minnesota Psychiatric Society

Resolves that the MMA develop and facilitate state legislation that will require health plans and insurance organizations to provide coverage for pharmaceutical prescriptions written by physicians compliant with plan formularies, who are otherwise eligible for reimbursement according to the enrollee's health plan contract.

**Res. 311, Cell Phone Use While Driving**

Introduced by HMS

Resolves that the MMA conduct a study on use of hand-held cellular phones by drivers and the relationship to motor vehicle accidents and report the findings to the 2001 MMA House of Delegates. It also calls on the MMA to conduct a public education campaign on responsible and safe use of cellular phones while operating a motor vehicle. It further resolves that the MMA ask the AMA to advocate that all states be required to include information about the presence and use of cellular phones in all motor vehicle accident reports.

**Res. 312, Banning Cellular Phone Use While Driving Policy**

Introduced by HMS

Resolves that the MMA adopt a policy that drivers should not use hand-held cellular phones while the motor vehicle they are driving is in motion, except when placing calls for emergency assistance. It also calls on the MMA to collect data on the safety of hand-held cellular phone use by drivers while the motor vehicle they are driving is in motion. If this study finds adequate data to conclude that use of hand-held cellular phones by drivers causes a significant driving public health safety risk for the general

public, the MMA is also called upon to seek state legislation to ban use of hand-held cellular phones by drivers while the motor vehicle they are driving is in motion, except when placing calls for emergency assistance.

### Res. 313, Driving While Using a Cellular Phone

Introduced by Range Medical Society

Resolves that the MMA support legislation deeming that a driver using a portable communication device or cellular phone be considered to be driving while impaired.

### Res. 314, Antibiotic Resistance Public Education Campaign

Introduced by MMA Anti-Microbial Prescribing Practices Task Force

Resolves that the MMA introduce legislation to obtain state funding for a statewide public education campaign regarding appropriate use of antibiotics and potential dangers of antibiotic resistance

### Res. 315, Sleepy Driving Prevention and Detection

Introduced by MMA Committee on Public Health and Preventive Medicine

Resolves that the MMA support and educate Minnesota physicians regarding the forthcoming U.S. Department of Transportation revised medical examination requirements for commercial motor vehicle drivers, which includes screening questions regarding sleep disorders, daytime sleepiness, and severe snoring. It also calls for the MMA to encourage law enforcement agencies to train appropriate personnel to recognize a fatigue-related crash and how to investigate motor vehicle crashes for sleepiness as a contributing factor and to investigate what, if any, options are available to law enforcement officers to remove sleepy drivers from the road. It further resolves that the MMA continue to educate Minnesota physicians about possible health and safety implications of sleepiness and encourage other health care associations to do the same for their members, and that the MMA work to improve the state's motor vehicle crash surveillance system in order to improve the data collection on the role of sleepiness in crashes.

### Res. 316, Tuberculosis

Introduced by MMA Committee on Public Health and Preventive Medicine

Resolves that the MMA work with appropriate parties to research and develop options to secure full public and private health care coverage for testing and treatment of known and suspected tuberculosis cases and for evaluation of individuals involved in a tuberculosis contact investigation.

### Res. 400, Continuation of Minnesota Maternal Mortality Studies

Introduced by the Minnesota Section of the American College of Obstetricians and Gynecologists and HMS

Resolves that the MMA initiate and/or support legislation exempting maternal mortality studies from the requirement for survivor informed consent, thus continuing studies monitoring factors and trends related to maternal death, including domestic violence, risk of C-section and vaginal birth after C-section, and other controllable and noncontrollable factors potentially affecting the occurrence of maternal death.

### Res. 401, Prohibition of Intact Dilatation and Extraction and Abortion Procedures

Introduced by the Lake Superior Medical Society

Resolves that the MMA support the prohibition of intact dilatation and extraction as a procedure that is medically unnecessary and morally wrong.

### Res. 402, National Practitioner Data Bank Protection

Introduced by RMS

Resolves that the MMA oppose any attempts to open the National Practitioner Data Bank to public query. It also calls on the MMA to continue to support the AMA position of opposing any attempt to open the National Practitioner Data Bank to public query.

### Res. 403, Empower Minnesota Physicians to Collectively Negotiate Contracts with Health Plans

Introduced by RMS

Resolves that the MMA, as a high priority, study legislation that provides state action immunity in states such as Texas. It also calls on the MMA to consider developing legislation that permits Minnesota physicians to collectively negotiate the terms and conditions of contracts with health plans.

### Res. 404, Education of Physicians Regarding Tortured and Traumatized Refugees

Introduced by RMS

Resolves that the MMA develop an education program to enable physicians to assess refugees for the possibility of post-traumatic stress, depression, or medical injury due to torture or war trauma. It also calls on the MMA to educate Minnesota physicians to uphold the principles of human rights by helping, if requested, document the physical and psychological effects of torture for asylum petitions or other legal redress.

### Res. 405, Use of Anatomical Gifts in Medical Research and Education

Introduced by Peter C. Amadio, M.D., delegate, Zumbro Valley Medical Society

Resolves that the MMA reaffirm AMA policy stating that informed consent must be obtained for use of organs or tissues in clinical research, and that human tissues may not be used for commercial purposes without informed consent, and MMA policy supporting legislation prohibiting the sale of human organs. It also calls on the MMA to adopt a policy stating that informed consent should be obtained from the donor or appropriate responsible individual for the use of anatomical gifts in medical education when such use will be made by other than the specified initial recipient of the donation. It also resolves that the MMA request that the AMA modify its ethical policy, and that the AMA study current legal safeguards for proper ethical use of human tissue for research and education, to determine if they are appropriate and sufficient.

### Res. 406, MMA Support of Long-Term Care

Introduced by Peter C. Amadio, M.D., delegate, Zumbro Valley Medical Society

Resolves that the MMA work with the MDH to transform monitoring of extended care facilities to be less punitive and more targeted toward improving quality of care. It also resolves that the MMA ask the AMA to lobby the HCFA to adopt a less punitive system, oriented to improving patient care in extended care facilities.

### Res. 407, Methadone Maintenance Treatment

Introduced by HMS and the Minnesota Psychiatric Society

Resolves that the MMA endorse increased use of methadone maintenance therapy in clinics and in offices of properly trained and administratively monitored physicians.

### Res. 408, Patient Safety

Introduced by HMS

Resolves that the MMA appoint a task force specifically commissioned to address the following issues of patient safety: (1) need and methods to identify root causes of errors, (2) issues of data privacy and confidentiality, (3) mechanisms to reduce the culture of blame in the health care industry, and (4) mechanisms for equitable distribution of costs to all concerned parties. It also calls on the MMA to work with local and national efforts to reduce medical errors and improve patient safety.

### Res. 409, Coverage of Experimental/Investigational Studies

Introduced by the Kenneth L. Dedeker, M.D., delegate, HMS

Resolves that the MMA Board of Trustees appoint a task force to address issues of clinical research in Minnesota with particular attention to (1) approval agencies, (2) facility and researcher participation with the participant member managed care organization, and (3) the mechanism for assignment of expenses. It also calls on the MMA to pursue negotiations with managed care organizations, clinical research groups, governmental agencies, and consumers to develop an organized systematic approach to clinical studies done in Minnesota with Minnesota residents.

### Res. 410, An Education Initiative for Improving School Performance

Introduced by the Zumbro Valley Medical Society

Resolves that the MMA endorse the Education Initiative for Improving School Performance developed by Zumbro Valley Medical Society. It also calls on the MMA to forward a copy of the initiative to Gov. Jesse Ventura and Lt. Gov. Mae Schunk and urge their endorsement and support of the recommendations in the initiative.

### Res. 411, Immunization Registries

Introduced by the Stearns-Benton County Medical Society

Resolves that the MMA encourage physicians to participate in development of confidential immunization registries in their local communities or regions and use such registries in their practices.

### Res. 412, Opposition to the H.R. 2260, Pain Relief Promotion Act

Introduced by the MMA Committee on Ethics and Medical-Legal Affairs

Resolves that the MMA oppose the Pain Relief Promotion Act or similar legislation that inserts the federal government into the practice of medicine and decision-making about appropriate pain management and palliative care. It also calls on the MMA to convey its opposition to the Pain Relief Promotion Act or similar legislation to Minnesota's senators and representatives and urge them to oppose the legislation. If H.R. 2260 or similar legislation is still pending at the deadline for submission of resolutions to the AMA Interim 2000 meeting, it is resolved that the MMA submit a resolution urging the AMA to change its position in support of the Pain Relief Promotion Act and oppose passage of the pending legislation. ■

# For complete healthcare Internet services, there's just one name to remember




THE INTERNET RESOURCE DESIGNED EXCLUSIVELY FOR HEALTHCARE PROFESSIONALS

## A total online service featuring healthcare resources, helpful links and professional services

In your business, quick access to information is critical. The MMIC Medical Services Portal is a medical provider's best choice for complete online services, providing physician practices with the tools and technology needed to remain strong and competitive in today's rapidly changing marketplace. MMICmedportal provides you with online business tools, technology and information system solutions as well as clinical and practice management resources, local news and weather plus a nationwide physician directory. Whether you need to search for possible side effects of the latest FDA approved drug, obtain reference material on a rare congenital condition or contact a medical colleague from across the nation, you can count on MMICmedportal.

## Save time and improve your efficiency

Chances are you already rely on the Internet at home. Why not make the Internet a part of your office as well? Brought to you by Midwest Medical Insurance Company, MMICmedportal was designed by medical professionals for medical professionals...your assurance of reliable information you'll find at your fingertips.

***To learn more about how MMICmedportal can work for you, call 1-800-328-5532 or visit us at www.mmicmedportal.com***

The MMICmedportal is a service of the Midwest Medical Group of Companies

MMIC™ medportal

*Progressive Internet Services for Healthcare Professionals*

# Interactive Media Violence and Children

*An excerpt from testimony submitted to the Committee on Commerce, Science and Transportation, United States Senate— March 21, 2000*



By David Walsh, Ph.D.

Concern about video game violence is not new. There were calls to ban violent games as early as 1976 when "Death Race," often acknowledged as the first violent video game, appeared on the market. Of course, the violence in "Death Race" seems tame in comparison with today's "first-person shooters." As technology advances, each generation of violent games becomes more graphic and extreme. The processing power of video game platforms has increased an astonishing 188-fold in the past seven months. The goal of creating virtual experiences draws ever closer. The addition of sexual material and crude language raises additional worries.

As the annual report cards issued by the National Institute on Media and the Family have shown, the most violent games still find their way into the hands of millions of children and teens. Since these games have become implicated in the string of recent school shootings, concern has reached new heights. This testimony brings together some of the findings from research to determine if these concerns are justified. In addition, it provides findings from ongoing research at the National Institute on Media and the Family.

## *Review of Research Literature*

The first thing we learn from the published research is that it is younger children who spend the most time playing games. According to one study, the time spent playing video and computer games peaks between ages 8 and 13.[1] A study we completed at the National Institute on Media and the Family found a similar pattern, with game playing time peaking between 8 and 15.[2] We also know

that youth, especially boys, gravitate to "action games," which include the "first-person shooters." In one study, 50% of boys listed violent games as their favorites.[3] A growing number of children and teens now have the technological skills to customize computer games. A recent development is putting "skins" on the characters in the games.This means that the player can insert the images of real people and places, thereby making the games even more realistic.

Many preteens and young teenagers spend a significant amount of time playing electronic games, with a preference for the violent ones. We also know that they have easy and frequent access to increasingly violent and realistic games. The next important question is, of course, "What are the effects of this?" Because the ultra-violent games are relatively new, the research literature is just beginning to accumulate. Research findings appearing in the 1980s and early 1990s are irrelevant because those studies did not include the types of violent games that have proliferated in the past six or seven years. For the last few years most experts have pointed to the vast body of research on television violence. That research clearly shows that heavy exposure causes negative effects on children.[4]

Because there has been so little relevant research specifically focusing on electronic games, some state that there is no demonstration of harm to children. That, of course, was the same argument used to defend television violence for more than three decades. It was only after many years of research that that argument was abandoned. That argument, however, will become harder to maintain with regard to electronic games because some important research findings are starting to appear that support the contention that the violence in computer and video games may indeed have a harmful effect.

I would like to highlight the findings of two independent research projects that found similar results. The first project was done by our collaborator Paul Lynch at the University of Oklahoma Medical School. Lynch has been studying the physiological reactions of teenagers to video games for 10 years. He found that violent video games caused much greater physiological changes than nonviolent games. The changes were found for heart rate and blood pressure as well as the aggression-related hormones, adrenaline, noradrenaline, and testosterone. A very important finding in Lynch's research was that the effect was much greater for males who pretested high on measures of anger and hostility. In other words, the violent games do not seem to affect everyone the same. Angry youth react much more strongly to violent video games than do more easygoing kids.[5]

This finding was confirmed in a sophisticated research project completed by Craig Anderson of Iowa State University and Karen Dill of Lenoir-Rhyne College. In my judgment, Anderson and Dill have executed the best study of video game violence to date. It will be published in its entirety in a forthcoming issue of the *Journal of Personality and Social Psychology*. They conducted two separate studies, one of which was an experiment.

In the first study, they found a positive correlation between real-life aggressive behavior and violent video game play. In addition, violent video game play was correlated with delinquency. Like Lynch, they also found that the correlation was much stronger for individuals who were characteristically aggressive. It is also noteworthy that Anderson and Dill found that the college students who spent the most time playing video games had the lowest grade-point averages.

Correlational studies are important but do not establish a causal link. It could be that aggressive people who get into more trouble prefer violent video games. To begin to address the causality question, the two researchers designed an experiment. They used games of the same difficulty, thereby ruling out frustration as a reason for aggression that might result from playing a violent game. Those students randomly assigned to play a violent game showed increases in aggressive thoughts and aggressive behavior. The students assigned to a nonviolent game did not.

## *National Institute on Media and the Family Study on Computer and Video Games—Preliminary Results*

Douglas Gentile, Ph.D., director of research at the National Institute on Media and the Family, Paul Lynch of the University of Oklahoma, and I have designed a program of research to determine the effects of video and computer games on children and teens. While the program of research will take a number of years and sufficient funding to complete, I am able to report preliminary findings in this testimony.

These results are based on responses to a survey administered to 137 teens in grades 8 to 12 in a large suburban school district near a large Midwestern city. Ninety-four were students in general classes. Forty-three were students in a special program for "at-risk" students.

### Electronic game habits

- 84% of teens overall play electronic games; 92% of boys play these games.
- The average teen plays video games for one hour at a sitting (does not include teens who don't play). Among boys only, the average length of game play at one sitting is 84 minutes (almost 1½ hours).
- Only 56% of teens who own their own games say that their parents know all of the games they own. Only 46% of boys who own their own games say that their parents know all of the games they own.
- 14% of teens (18% of boys) who own their own games say they have games their parents wouldn't approve of if they knew what was in them.
- 32% of boys who play video games download games from the Internet.
- 89% of teens (91% of boys) say that their parents "never" put limits on how much time they are allowed to play video games.

• 42% of teens (52% of boys) say that they sometimes try to limit their own playing, but only 70% of them (67% of boys) are successful in limiting their own playing.

• The average teen likes a moderate amount of violence in video games (median=5 on a scale of 1 to 10). Among boys only, the average teen likes a fair amount of violence in his games (median=7 on a scale of 1 to 10).

• 15% of teens (29% of boys) say they have felt like they were addicted to video games.

• Among boys only, teens spend an average of 19 hours/week watching TV, 10 hours/week playing video games (includes teens who play zero hours), 18 hours/week listening to music, and one hour/week reading for pleasure. (When teens who never play are removed, the average time/week playing video games is 11 hours.)

• Among at-risk boys only, teens spend an average of 25 hours/week watching TV, 16 hours/week playing video games (includes teens who play zero hours), 19 hours/week listening to music, and slightly more than 2 hours/week reading for pleasure (138 minutes). (When teens who never play are removed, the average time/week playing video games is 16¼ hours.)

• Boys expose themselves to more video game violence than girls, and at-risk teens expose themselves to more video game violence than general students.

### Effects: school performance

• Amount of time playing video games has a negative impact on school performance, by many different measures: Teens who play more each week, play more yearly, and have played more over their lifetimes perform more poorly in school (as self-reported) than teens who play less.

• Teens who expose themselves to more violence in video games perform more poorly in school than teens who expose themselves to less violence in video games.

### Effects: physical fights

• Amount of time playing video games is positively correlated with getting into physical fights, by many different measures: Teens who play more each week, play more yearly, and have played more over their lifetimes are more likely to have gotten into a fight in the past year than teens who play less.

• Similarly, teens who say they are more familiar with video games are more likely to have gotten into a fight in the past year than teens who are less familiar with video games.

• Teens who expose themselves to more violence in video games are more likely to have gotten into a physical fight in the past year than teens who expose themselves to less violence in video games.

These sample sizes provide data accurate to ±10% when generalizing to general populations of teens, and to ±17% when generalizing to at-risk populations of teens.

Additional studies are needed before we can claim a cause-effect relationship between video game violence and real-life aggression. However, the recent research developments show that the concern about the impact of violent video games is justified. The findings should spur more research and greater vigilance over the video and computer game diet of children and youth. MM

*David Walsh is president of the National Institute on Media and the Family in Minneapolis.*

### REFERENCES

1. Roberts DR, Foehr UG, Rideout VJ, Brodie M. Kids and media at the new millennium. Menlo Park, CA: Kaiser Family Foundation, 1999.

2. Gentile DA, Walsh DA. MediaQuotient™: national survey of family media habits, knowledge, and attitudes. Minneapolis, MN: National Institute on Media and the Family, 1999.

3. Buchman DD, Funk JB. Video and computer games in the '90s: children's time commitment and game preference. Child Today 1996;24:12-16,31.

4. Walsh D, Goldman LS, Brown R. Physician guide to media violence. Chicago, IL: American Medical Association, 1996.

5. Lynch PJ. Hostility, type A behavior, and stress hormones at rest and after playing violent video games in teenagers. Psychosom Med 1999;61:113.

*If you are looking for professional growth and long term financial security, consider*

PREVEA CLINIC

PREVEA CLINIC, Green Bay, Wisconsin, is a large multi-specialty physician owned clinic, expanding to meet a thriving patient base in a 200,000 community with a strong work ethic, located in beautiful Northeastern Wisconsin. Enjoy boating on the shores of Lake Michigan and an array of outdoor sports plus a quality family life focusing on traditional values.

Professionally you will share ownership and the ability to control medical choices for care with other department members. Excellent compensation and benefits are being offered for the following opportunities:

- Dermatology
- Endocrinology
- Family Medicine
- Hospitalist
- Neurology
- Neurosurgery
- Obstetrics/Gynecology
- Pediatric Critical Care
- Pediatric Ophthalmology
- Rheumatology
- Urology

For more information regarding shareholder opportunities with Prevea Clinic, contact Claudine Taub at 1-800-236-3030 or fax your CV: 920-431-3043. Or, visit our website at http://www.prevea.com.

# Wouldn't you like a **LOW-COST** employee benefit?




**MMBR** has partnered with **IBM Mid America Employees Federal Credit Union** — one of the largest and most successful credit unions in the state — specifically for the benefit of your medical practice.

- IBM Mid America is driven by a mission of providing **high-quality service** — 98% of its members say the credit union either meets or exceeds their service expectations.*
- Some experts estimate that credit union membership can save the average American family **$400 to $500** a year.
- The credit union emphasizes **high savings rates, low loan rates,** minimal fees and convenient access through a combination of branch offices and state-of-the-art technology.

*To find out how the valuable benefit of credit union membership can be offered to your employees at **no cost** to you, call MMBR at **1-800-298-6627** or **612/623-2860.***

## Are you interested in an employee benefit that:

- Adds **real value** to your benefits package?
- Can help increase **employee retention?**
- Requires **no investment** of your administrative time?
- Is **easy to implement,** with no hassle?

* 1999 Service Quality Survey

IBM
**MID AMERICA**
EMPLOYEES
FEDERAL
CREDIT UNION

**MMBR**

MINNESOTA MEDICAL BUSINESS RESOURCES OWNED BY MMA & HMS

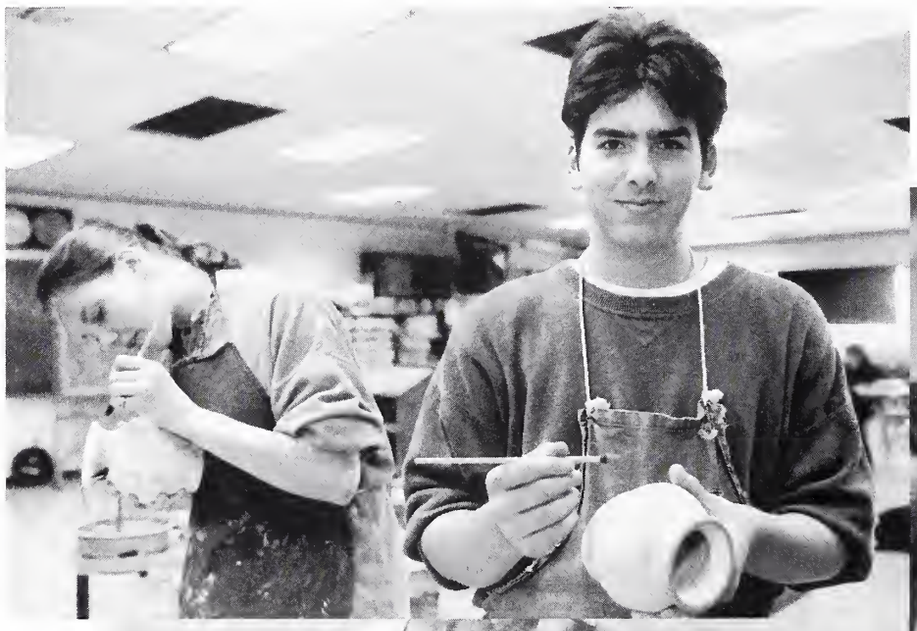
**www.mnmed.org/mmbr • e-mail: mmbr@mnmed.org**

# Preventing Youth Violence: Strategies That Work

Two hundred million firearms in the nation. One in four households with guns. More than a million latch-key children with access to guns. The highest youth homicide rate of any Western nation except Russia.

The statistics about violence in this country are disturbing and often overwhelming. We blame new media such as video games for our violent nature. We blame our gun-slinging history. And we'd like to escape, to raise our children in a nicer place—say, Minnesota. But even the land known for "nice" is not immune to violence. Recently, an 11-year-old boy was gunned down in his Minneapolis neighborhood, a 17-year-old boy was killed in a Lakeville park, and a Brooklyn Center teenager was shot because he is black.

Although the problem of youth violence is complex and pervasive, it is neither insurmountable nor inscrutable. The following articles by state experts show we know much about the causes and prevention of youth violence. The solutions they unanimously suggest are in the hands of caring adults—parents and other family members, mentors, teachers, human service providers, and physicians.







PHOTOS BY JOHN NOLTNER

# Protecting Youth from Harm

*Experts have identified causes of youth violence and ways to prevent it.*

By Judith Kahn, M.S.W.

## What Contributes to Youth Violence?

In 1933, 75% of deaths among 15- to19-year-olds were the result of natural causes; in 1993, 80 percent of deaths in that age group were the result of homicide and unintentional injury.[1] What has contributed to this dramatic change?

The fact is, there is no single reason some children and adolescents participate in violent behavior. One factor may be the increasing poverty among youth. One in four children in this country is poor, despite a booming U.S. economy.[2] Impoverished and chaotic communities often lack effective social or cultural neighborhood organizations and services that provide social support to families and supervision for children and teens.[3]

Youths exposed to high rates of violence in their communities are more likely to experience and/or perpetrate violence themselves. They come to see violence as inevitable, even if they have never been personally involved in it. Studies have reported that anywhere from 70% to more than 95% of inner-city adolescents and preadolescent children have witnessed a robbery, stabbing, shooting, or murder. Nonurban children have been studied to a much lesser extent, but one study of suburban middle-school children in Pennsylvania and Delaware found that 57% of the students had witnessed such violence.[4] Many of these children described symptoms of posttraumatic stress disorder, depression, and somatization syndromes.[5]

Children who are exposed to domestic violence are at risk for using violence. Children in violent families are at greater risk of being abused themselves; and abused children are more likely to grow up to perpetrate violence.[6] Studies suggest that witnessing violence at home may be as traumatic for children as being victimized themselves, resulting in debilitating psychological effects and long-term behavioral effects.[7]

Children and adolescents use guns when they are easily accessible. Nearly half of U.S. homes have some type of firearm, and 26% have a handgun. Adolescents living in homes where there is easy access to guns are more likely to be involved in violent behavior and are at increased risk for suicidal thoughts or attempts.[8] In a national survey of adolescents in 1993, 15% of boys reported that they had carried a gun within the last 30 days and more than half said they knew where to get a gun if they wanted one.[9]

Youth violence is linked to other risks too. In about 65% of all homicides, the perpetrators, the victims, or both have been drinking. Similar percentages of stabbings, beatings, and domestic violence involve alcohol. Half of youth homicide victims have elevated blood-alcohol levels on autopsy.[10] Illegal drug use is also associated with both violence perpetration and victimization among youth.[11]

Clearly, carrying a weapon or using drugs and alcohol is a risky choice. Resnick and colleagues report in a recent study that the mere presence of weapons, drugs, or alcohol in the home increases the likelihood that adolescents will engage in harmful behavior.[8]

## What Protects Children and Youth from Violence?

America's experts have learned not only what predisposes youth to violent behavior, but also what protects young people.

**Children need connections with families, schools, and friends.** To put it simply, parents matter. Adolescents need to feel understood, loved, cared for, and paid attention to by parent(s) and other family members. When youth report a low level of connectedness to their parents, they are more likely to be involved in violent behavior. Regardless of the number of parents in a household, the family's degree of wealth or poverty, or their race and ethnicity, children who report feeling connected to a parent are protected against many health risks, including violence and suicidal thoughts and attempts.

**Youth are also protected when parents are frequently present in the home at key times of the day.** Parents need to model good behavior as well as supervise their children's behavior. Poor parental supervision is one of the best predictors of committing violent crimes.[12]

**Good parenting skills and style matter as well.** Current data suggest that children learn to be aggressive when they are very young. One study found that some of the most important precursors of aggression in boys were harsh attitudes and harsh discipline experienced by age 8. The aggressive "scripts" that children hear and learn very early become resistant to change.[12] Authoritarian child-rearing and disagreement over parenting styles can foster violent behavior.

Prominent research indicates that interventions to improve parenting skills may prevent or reduce children's aggressive behavior. Many parents are positively motivated but don't know how to parent. For single parents and those with little or no external support systems, parenting can be particularly difficult. Without extended family members such as aunts, uncles, grandparents, and other adults to provide guidance in raising a child, as well as respite from its constant burdens, child-rearing can be lonely and frustrating.

**Children benefit from one-on-one attention and mentoring from adults outside the family.** In addition to modeling nonviolent behavior for immediate violence reduction, mentors should also consider providing school support and career role modeling. In these ways, mentors can help young people break the cycle of poverty that so often underlies violence.

**Schools also matter.** Students who report positive feelings of connectedness to school are moderately protected from violent behavior. Teens who report that teachers treat them fairly, that they feel a part of the school, and that other kids are not prejudiced feel connected.[13] Academic achievement also makes a difference. Those who have to repeat a grade are at greater risk for antisocial behavior.

**Peer relationships make a difference.** In one study, half of all boys who reported feeling rejected by their peers were aggressive and two-thirds of all aggressive boys were rejected by their peers. This failure in developing peer relations takes on a life of its own. Rejection by the group of mainstream children leads antisocial children to seek out a group of deviant peers similar to themselves.[14]

The same study shows the opposite also is true. When a group of 7- to 15-year-old "antisocial" boys was placed in a community association group of mainstream boys (approximately 25 mainstream boys with one or two "antisocial" boys), the influence of a normal peer group appeared to be crucial in changing the antisocial behavior of the deviant boys.[14]

**In addition, children need a safe, supportive place to go after school.** Young people cannot flourish in a climate of fear and chaos. Children need structured activities during nonschool hours and safe places where they can study, play, and receive the necessary guidance to reach their potential in life.

## Conclusion

We know that violence is not one thing, but many. It occurs on a continuum—from bullying and verbal abuse to fighting and homicide, and many of the diverse and complex causes of violence are deeply embedded in the social fabric of family, neighborhood, and community. Health care providers and social scientists must join with policymakers and program developers not only to reduce the risks our children face but also to enhance or create those experiences, circumstances, and opportunities that we know protect our young people from harm.

*Judith Kahn is director of the Konopka Institute for Best Practices in Adolescent Health at the University of Minnesota. The Konopka Institute, a collaboration of the schools of Medicine, Nursing, and Public Health, promotes effective youth policies and programs through the identification and translation of research on adolescent health–related issues.*

*Adapted from: Mann Rinehart P, Borowskly I, Stolz A, Latts E, Cart CU, Brindis CD. Youth violence: lessons from the experts. San Francisco: Division of General Pediatrics and Adolescent Health, Department of Pediatrics, University of Minnesota and the Division of Adolescent Medicine, Department of Pediatrics and Institute for Health Policy Studies, School of Medicine, University of California/San Francisco, 1998.*

REFERENCES

1. Brindis CD, Irwin CE, Jr., Millstein SG. The demography of adolescents in the U.S.: a national profile. In: McAnarney E, Kreipe R, Orr DP, eds. Textbook of adolescent medicine. Philadelphia: WB Saunders, 1992:12-27.
2. Li L, Bennett N. Young children in poverty: a statistical update. New York: Columbia School of Public Health, 1998.
3. Earls FJ. Violence and today's youth. Critical Health Issues for Children and Youth 1994; 4(3):4-23.
4. Campbell C, Schwartz DF. Prevalence and impact of exposure to interpersonal violence among suburban and urban middle school students. Pediatrics 1996;98(3 pt 1):396-402.
5. Singer MI, Anglin TM, Song LY, Lunghofer L. Adolescents' exposure to violence and associated symptoms of psychological trauma. JAMA 1995;273(6):477-82.
6. Straus MA, Gelles RJ. How violent are American families? In: Straus MA, Gelles RJ, eds. Physical violence in American families: risk factors and adaptation to violence in 8,145 families. New Brunswick, NJ: Transaction Publishers, 1990:12-27, 95-112.
7. Zuckerman B, Augustyn M, Groves BM, Parker P. Silent victims revisited: the special case of domestic violence. Pediatrics 1995;96(3 pt 1):511-13.
8. Resnick MD, Bearman PS, Blum RW, et al. Protecting adolescents from harm: findings from the National Longitudinal Study on Adolescent Health. JAMA 1997;278(10):823-32.
9. Kahn L, Warren CW, Harris WA, Collins B, Williams B, Kolbe LJ. Youth risk behavior surveillance, 1995. Atlanta, GA. Surveillance and Evaluation Research Branch, Division of Adolescent and School Health, Centers for Disease Control and Prevention, 1996.
10. Adams PF, Schoenborn CA, Moss AJ. High risk behaviors among our nation's youth: United States-1992. Hyattsville, Maryland: National Center for Health Statistics; DHHS publication no. 95-1520.
11. Kingery PM, Pruitt BE, Hurley RS. Violence and illegal drug use among adolescents: evidence from the U.S. National Adolescent Student Health Survey. Int J Addict 1992;27(12):1445-64.
12. McCord J. Some child-rearing antecedents of criminal behavior in adult men. J Pers Soc Psychol 1979;37:1477-86.
13. Blum RW, Rinehart PM. Reducing the risk: connections that make a difference in the lives of youth. Minneapolis: Division of General Pediatrics and Adolescent Health, University of Minnesota, 1997.
14. Rivara FP, Farrington DP. Prevention of violence: role of the pediatrician. Arch Pediatr Adolesc Med 1995;149(4):421-9.

# Promising Approaches to Youth Violence Prevention

*A review of published research reveals best practices for preventing violence.*

By Renee Vanman Wixon, M.P.H.

Too many young Americans become victims—or perpetrators—of violence each year. Concerned community members, parents, school officials, and public leaders have responded to the problem by implementing a variety of programs. We've learned from those efforts that there isn't a "one-size-fits-all" solution to violence prevention. We've identified the factors that put young people at risk of violence and the factors that can protect them from violence. And we've learned some "best practices" by studying programs and approaches that work. With this knowledge we can begin to craft more effective solutions to the problem of youth violence.

## Risk Factors for Youth Violence

Researchers have identified key factors that predispose youth to violence. In general, they include lack of strong bonds and connections to family, school, or community; association with violent family or friends; chaos and disorder; and lack of critical thinking and problem-solving skills. The most successful violence prevention programs work to decrease risk factors and promote protective factors.

## Protective Factors

Understanding and promoting protective factors is critical to the success of violence prevention programs. Research has found that youth exposed to multiple risk factors who also have protective factors can avoid involvement in violence. Protective factors include:

- Strong social bonds—close ties to parents, extended family, adults outside the family (teachers, coaches), friends, school, and community. Youths with these bonds are more likely to be committed to goals held by these groups or individuals and are less likely to engage in behaviors that would break these bonds.[1–4]
- Strong values and clear standards for nonviolent behavior—continually reinforced at home, in school, and within the community.[1]
- Individual characteristics—resilience, positive social orientation, and high cognitive functioning.[1,2]

## Characteristics of Effective Programs

Youth violence prevention is best accomplished by building strong families. Many of the most effective programs are not specifically violence prevention programs; rather, they are programs that strengthen families or help youth develop critical life skills.

Regardless of the particular strategies or objectives, programs that work to prevent youth violence are most effective when they do the following:

1. Clearly establish and enforce high standards and behavioral norms.
2. Provide skill-based training or rehabilitation.
3. Engage caring and knowledgeable adults.
4. Are targeted and focused.
5. Reduce opportunities for antisocial or violent behavior.
6. Provide long-term services, support, and follow-up.

## Promising Approaches

The following summary of Promising Approaches to Violence Prevention is based on the findings of four published analyses of youth violence/crime prevention programs.[1–4] These studies examined published literature evaluating youth violence prevention programs, stratified them by their level of intervention, and classified them according to their effectiveness. Generally, strategies were classified as follows:

- **Most promising:** Multiple evaluation studies demonstrate their positive effect.
- **Promising:** These strategies show some success, but lack multiple evaluation studies.
- **Least promising:** Multiple evaluation studies demonstrate their ineffectiveness.

## Individual-level Interventions

Individual-level interventions focus on individuals as the unit of change. These interventions often use a therapeutic approach to help youth overcome emotional, behavioral, or cognitive problems or to promote life skills. The most promising strategies employ behavior management techniques and applied skills training. Less directive programs, such as counseling and case management, are the least promising. Mentoring programs that incorporate behavior management techniques are promising, but more study is needed to determine their best design.

## Family-level Interventions

The key to youth violence prevention is effective family functioning. Children from families that have strong emotional bonding, provide good supervision of children, clearly communicate and enforce behavioral norms, and use critical thinking skills to solve problems are much less likely to be involved in violent behaviors. Programs that help families develop these characteristics work to prevent youth violence. Home visiting, structured child care and preschools, parent training, and marriage and family therapy each improve family functioning and thus help prevent youth violence. Family-level interventions are most effective when the intervention takes place early in the lives of the children.

## Peer Group–level Interventions

Interventions directed at the peer group attempt to capitalize on the powerful influence that peers have on one another. Some interventions try to change the attitudes

### What Medical Practitioners Can Do to Prevent Youth Violence

- Systematically screen for child abuse and/or maltreatment. Refer families to appropriate services. Children who are abused or maltreated are much more likely to be involved in violence as adolescents or adults.
- Encourage parents to enroll in parenting classes or get parent training through a local Early Childhood and Family Education (ECFE) class, church, or other community program. Display parenting literature in your lobby and/or exam rooms.
- Screen patients for alcohol and drug abuse, and make referrals for treatment as appropriate. Violent behaviors are often related to alcohol and drug abuse.
- Encourage parents to turn off the television in their homes. Reduced exposure to media violence is linked to lower rates of violence. An added benefit of less television is more opportunity for family bonding.
- Advise adolescents about abstaining from alcohol, drugs, tobacco, and sex—risk behaviors associated with violence.
- Refer families to marriage and family therapy as appropriate. Improved interaction and communication can reduce conflict and violence within the family.

and behaviors of an entire group, while others work to prevent individuals from joining violent or antisocial peer groups. Overall, few peer-group interventions have demonstrated promise; some interventions even yield negative results.

Programs that use peers to counsel or influence and programs that attempt to change the norms and beliefs of the entire peer group are the least promising. Programs that reduce gang cohesion and divert at-risk youth with alternative activities may hold some promise. The only peer-level approach demonstrated to work is integrating at-risk youth into positive groups of adolescents.

## Community-level Interventions

A plethora of community-level youth violence prevention efforts has been tried, with varying degrees of success. Overall, little evidence demonstrates the effectiveness of violence prevention at the community level. The most promising programs are those that combine youth recreation, diversion, or employment with intensive skill-based training. A few youth service programs show some promise, but the majority of community-level programs do not.

## School-level Interventions

School programs have strong potential for violence prevention because they reach large numbers of at-risk children in their developmental years, and they are staffed with trained and caring adults. Numerous approaches to violence prevention programming have been implemented in schools. Examples include school counseling programs and classroom teaching on violence prevention. Overall, strong school leadership with good classroom management and teaching is more effective at preventing violence than formal violence prevention programs. Initiatives that improve the learning environment and initiatives that help children learn and succeed at school are each successful in preventing youth violence.

## Public Policy Strategies

Public policy is perhaps the most fertile but least used strategy for youth violence prevention. Its potential impact is far greater than that of programming. Policies that address housing, business incentives, and welfare reform, or reduce access to alcohol, drugs, and guns are among those that show promise for preventing violence.

### Acknowledgments

This paper is based on Promising Approaches to Youth Violence Prevention: A Program Planning Guide published by the Minneapolis Department of Health and Family Support, December 1998, Renee Vanman Wixon, M.P.H., author.

*Renee Vanman Wixon is an independent consultant in public health and nonprofit management.*

REFERENCES

1. Howell JC, ed. Guide for implementing the comprehensive strategy for serious, violent, and chronic juvenile offenders. Office of Juvenile Justice and Delinquency Prevention, June 1995.
2. Tolan P, Guerra N. What works in reducing adolescent violence: an empirical review of the field. Boulder, Colorado: Center for the Study and Prevention of Violence, July 1994.
3. University of Maryland, Department of Criminology and Criminal Justice. Preventing crime: what works, what doesn't, what's promising research report. Washington, D.C.: National Institute of Justice, February 1997.
4. Kellermann AL, Fuqua-Whitley DS, Rivara FP. Preventing youth violence: a summary of program evaluations. Seattle, WA: America's Promise, September 1996.

# Beyond Treating the Wounds

## *The Physician's Role in Preventing Gun Violence*

*Once they know the facts, physicians can counsel their patients on gun safety.*

By Jill Heins Nesvold, M.S., Sara Seifert, M.P.H., Neal Holtan, M.D., M.P.H., and Janny Dwyer Brust, M.P.H.

Gun-related incidents are the second-leading cause of injury death in the United States, surpassed only by motor vehicle deaths.[1] Like most motor vehicle deaths, injuries and deaths from guns are almost always preventable.[2] In Minnesota, 3,529 people lost their lives from gun-related injuries between 1988 and 1997.[3]

The majority of gun-related deaths in this state—81% in 1998—are due to suicide.[4] Gun-related suicides are disproportionately high among young and elderly men.[3] Homicide and unintentional gun deaths are most common among young men.[3] Guns are also a factor in many nonfatal injuries. In 1998, there were 384 nonfatal gun-related injuries in Minnesota, excluding air gun injuries, that required treatment in emergency departments or hospitals.[5] Of the injuries reported, 43% were assault-related and 40% were unintentional, both disproportionately affecting young men.[5] These injuries not only exact a tremendous toll on the individual victims, but prove costly for health care and society as a whole.

Injuries from guns are predictable and preventable events.[2] The Minnesota Health Care Coalition on Violence, a statewide coalition with members from the private and public health sectors, released a report in May 2000 describing prevention strategies that could be successfully implemented by health care providers and health care systems. (For more information, or to obtain a copy of the report, call 612/863-5194.) Prevention strategies were identified in an initial structured interview with 18 national and local gun injury experts. The strategies were ranked a second time for importance by the same experts. The four most highly recommended strategies were:

1. Collect data on gun injuries and deaths for surveillance and develop prevention strategies;
2. Advocate (both providers and health care systems) for policies effective in reducing gun-related injuries and deaths;
3. Train health care providers to offer effective gun safety counseling; and
4. Provide gun safety counseling to patients and their families.

### *Data Collection*

Health care systems can help decrease gun injuries and deaths by collecting data needed to determine their prevalence and risk factors as well as to evaluate interventions. Physicians should completely and accurately document details of gun injuries in the medical record, including type of gun used and intentionality (assault, unintentional, or self-inflicted).

### *Advocacy*

Health care providers and health care systems both play significant roles in promoting gun safety. Policies that regulate the manufacture, marketing, and sale of guns are most likely to be effective, whereas policies that regulate use are least likely to be effective in reducing gun injuries and deaths.[6]

### *Counseling and Training*

Even though nearly half of households have a gun, many physicians do not believe that guns are a threat to the health of their patients.[7,8] Reasons for personal ownership and use of guns include hunting, target shooting, collecting, and self-defense. Yet, epidemiologic studies show that guns are much more likely to kill household members than to kill intruders.[9,10] A national survey of gun owners showed that nearly a third of those with children at home sometimes or always kept a gun that was loaded.[11]

The American Medical Association[12] and the American Academy of Pediatrics[13,14] recommend that health care providers counsel patients on gun safety. Research on patient and health care provider attitudes and beliefs about gun safety counseling shows:

- Physicians and nurse practitioners believe they should counsel patients[7,15,16] but are not trained to counsel patients about gun-related topics.[17]
- About half of physicians never counsel their patients about gun safety.[6-8]
- Lack of time during office visits and lack of knowledge about gun safety are the two main barriers to counseling.[7,16-18]
- Physicians are more comfortable counseling about safe gun storage than removal of guns from the home.[7,16,19]

The Minnesota Medical Association's official policy "encourages physicians, as part of general patient history/questioning, to ask patients/parents if they have a firearm and, if so, if the ammunition is stored apart from the firearm." The MMA also "encourages physicians to provide information or resources on how to safely store a firearm to patients who choose to keep a firearm in their home."

To convey prevention messages effectively, physicians need to have the facts about guns, be nonjudgmental, and avoid political controversy when discussing the accessibility of guns in the home. The goal is to decrease the accessibility of guns and ammunition in homes with children, teens, depressed adults, and violence.

Advice to parents regarding children's exposure to

guns should begin during the toddler years and continue in conjunction with inquiries about other safety measures, such as bike helmets, seat belts, and flotation devices.

Physicians should discuss these four points with parents of young children and teens:

- The surest way to reduce firearm injuries to children is to remove guns from environments where children and teens live and play.
- If the first recommendation is not acceptable because of family preferences or cultural values, physicians should recommend that firearms be stored in the most secure manner possible.
- As children reach the age to visit friends' homes, parents should inquire about the presence and storage of guns in those homes.
- If there is a suicidal child, teen, or adult in the home, firmly recommend removal of all guns from the home. Method of gun storage does not appear to reduce the likelihood of a teen's completing suicide.[20] The gun must be removed from the home.

Most parents report that they would follow the advice of their physician about safe storage.[21]

For adults without children, physicians can use a slightly different counseling approach. Physicians should ask adult males about personal safety habits—seat belt use, alcohol use and driving, and presence of a gun at home. For women, they should begin by screening for domestic abuse and ask about arguments and conflict resolution (American Foundation for Suicide Prevention and American Association of Suicidology; personal correspondence). Physicians should ask all patients about depression, alcohol abuse, and suicide intentions, and advise removal of guns from the homes of their mentally ill patients.

In summary, physicians and health care systems can help prevent gun-related injuries and deaths. The great majority of gun-related deaths every year in Minnesota are suicides, followed far behind by homicides and unintentional injuries. The number of fatal injuries is about the same as the number of nonfatal gun injuries reported by hospitals and emergency rooms. Physicians can play a role in preventing gun-related injuries in the course of routine health care by questioning patients and families about access to guns, especially by alcoholic, depressed, or demented patients and by children. They also can support surveillance of gun injuries by public health authorities and participate in community advocacy to reduce firearm injury.

## Resources for Physicians

- Stop Gun Injuries and Death, a project of the Minnesota Institute of Public Health, has value-neutral, educational media kits and posters available at no charge. Call 763/427-5310.
- The American Academy of Pediatrics, in conjunction with the Center for Prevention of Handgun Violence, produced materials for STOP: Steps to Prevent Firearm Injury program.
- The Health Care Coalition on Violence, a statewide coalition with members from the private and public health sectors. For a copy of the coalition's report on gun injuries and prevention strategies for health care, call 612/863-5194.

## Safe Storage of Firearms

- Keep the gun unloaded when not in use.
- Store ammunition separate from the gun.
- Lock the gun. Use a quality trigger lock, cable lock, gun safe, or lock box. A desk drawer or closet shelf is not safe storage.

## Mandatory Reporting

Under Minnesota Statute 626.52, subd2, a health professional shall immediately report to the local police department or county sheriff all bullet wounds, gunshot wounds, powder burns, or any other injury arising from or caused by the discharge of any gun, pistol, or any other firearm, which the health professional is called upon to treat, dress, or bandage. Upon receiving a report, the sheriff or chief of police shall forward the information contained in the report to the commissioner of health. The commissioner of health shall keep the report confidential. The commissioner shall maintain a statewide, computerized record system containing summary data.

*Jill Heins Nesvold is the health promotion specialist at the Minnesota Institute of Public Health. Sara Seifert is a community health planner at Allina Health System. Neal Holtan is medical director for the St. Paul-Ramsey County Department of Public Health and the Minnesota Institute of Public Health and a private practitioner in general preventive medicine. Janny Dwyer Brust is vice president, public health for Allina Health System.*

REFERENCES

1. Centers for Disease Control and Prevention. Nonfatal and fatal firearm-related injuries–United States, 1993–1997. MMWR November 19, 1999;49(45):1029-34.
2. Rosenberg ML, Hammond WR. Surveillance: the key to firearm injury prevention. Am J Prev Med 1998;15(3S):1.
3. Centers for Disease Control and Prevention. Compressed mortality data. Retrieved April 12, 2000, from CDC Wonder database: http://wonder.cdc.gov.
4. Minnesota Department of Health, Injury and Violence Prevention Unit. Unpublished data. Received March 31, 2000.
5. Minnesota Department of Health, Injury and Violence Prevention Unit. Nonfatal injury in Minnesota, 1998: hospitalized and emergency-department treated. Unpublished. Received April 10, 2000.
6. Teret SP, Wintemute GJ. Policies to prevent firearm injuries. Health Aff Winter 1993;12(4)96-108.
7. Webster DW, Wilson ME, Duggan AK, Pakula LC. Firearm injury prevention counseling: a study of pediatricians' beliefs and practices. Pediatrics 1992;89:902-7.

8. Minnesota Planning Criminal Justice Center. Changing perceptions: 1996 Minnesota crime survey. December 1996.
9. Kellermann AL, Reay DT. Protection or peril? An analysis of firearm-related deaths in the home. N Engl J Med 1986;314:1557-60.
10. Kellermann AL, Somes G, Rivara FP, Lee RK, Banton JG. Injuries and deaths due to firearms in the home. J Trauma 1998;45(2): 263-7.
11. Weil D, Henenway D. Loaded guns in the home: analysis of a national random survey of gun owners. JAMA 1992;267:3003-37.
12. Brown RL, Goldman LS. Physician firearm safety guide. American Medical Association, 1998.
13. American Academy of Pediatrics Committee on Adolescents. Firearms and adolescents. Pediatrics 1992;89(4):784-7. Retrieved June 24, 1999, from http://www.aap.org/policy/04711.html.
14. American Academy of Pediatrics Committee on Injury and Poison Prevention. Firearm injuries affecting the pediatric population. Pediatrics 1992;89(4):788-90. Retrieved June 24, 1999, from http://www.aap.org/policy/04712.html.
15. Cassel CK, Nelson EA, Smith TW, Schwab CW, Barlow B, Gary NE. Internists' and surgeons' attitudes toward guns and firearm injury prevention. Ann Intern Med 1998;128:224-30.
16. Grossman DC, Mang K, Rivara FP. Firearm injury prevention counseling by pediatricians and family physicians: practices and beliefs. Arch Pediatr Adolesc Med 1995;149:973-7.
17. Everett SA, Price JH, Bedell AW, Telljohann SK. Family practice physicians' firearm safety counseling beliefs and behaviors. J Community Health 1997;22(5):313-24.
18. Barkin S, Duan N, Fink A, Brook RH, Gelberg L. The smoking gun: do clinicians follow guidelines on firearm safety counseling? Arch Pediatr Adolesc Med 1998;152:749-56.
19. Olson LM, Christoffel KK, O'Connor KG. Pediatricians' experience with and attitudes toward firearms: results of a national survey. Arch Pediatr Adolesc Med 1997;151:352-9.
20. Brent DA, Perper JA, Allman CJ, Moritz GM, Vartella ME, Zdenak JP. The presence and accessibility of firearms in the homes of adolescent suicides: a case-control study. JAMA 1991;266:2989-95.
21. Webster DW, Wilson MEH, Duggan AK, Pakula LC. Parents' beliefs about preventing gun injuries to children. Pediatrics 1992;89(5):908-14.

Picture your future with ACMC...
We think you'll fit right in!

ACMC is a 100+ multi-specialty group providing primary and secondary care in over 23 specialties in a network of 10 clinics in Southwestern and West Central Minnesota.

ACMC offers a secure practice among a well-established and respected physician owned group with a very competitive financial and benefits package.

Positions now available for BE/BC physicians in:

Benson: *Family Practice*

Litchfield: *Family Practice*

Marshall: *Family Practice, Internal Medicine, OB/Gyn*

Redwood Falls: *Family Practice, Med/Peds*

Willmar: *Family Practice, Internal Medicine, Oncology, Orthopaedic Surgery, Gastroenterology, Anesthesia, Urology, Psychiatry*

Please contact:
Kari Bredberg, Physician Recruitment
(320) 231-6366 • karib@acmc.com
Affiliated Community Medical Centers
101 Willmar Avenue SW • Willmar, MN 56201
www.acmc.com

Affiliated COMMUNITY Medical Centers, P.A.

Teaching, Research, & Patient Care

It's our mission.

Hennepin Faculty Associates (HFA) is an academic multispecialty group comprised of more than 250 physicians. HFA physicians teach students, residents, and fellows at HCMC, where they also provide and oversee care, and pursue research through the Minneapolis Medical Research Foundation.

HFA also operates independent clinics, including two multispecialty clinics that are staffed by numerous specialists and subspecialists.

HFA clinics are JCAHO-accredited.
Joint Commission on Accreditation of Healthcare Organizations

Hennepin Faculty Associates
914 South 8th Street, Minneapolis, MN 55404
(612) 347-DOCS

# Listening to Rural Minnesota

*The Center for Reducing Rural Violence helps rural communities find solutions to youth violence.*

By Cheryl Heilman, J.D.

How can we prevent youth violence? How should we respond when violence occurs in our community? What should happen to youthful offenders? What should happen to address the harm to victims? What role can community leaders—including those in the medical profession—play in addressing and preventing youth violence?

As director of the Center for Reducing Rural Violence, I've had the opportunity to consider these questions about youth violence from a statewide perspective and to see the impact of violence on Minnesota communities. I've also learned a great deal from people in rural communities and schools who are working on this issue.

## A Statewide Issue

What I have learned is that youth violence, crime, and delinquency affect people throughout Minnesota. While rural areas face challenges of transportation and lack of services that may differ from those in urban areas, their fundamental concerns about violence are the same. Started in 1995 with the support of the Blandin Foundation, the Center for Reducing Rural Violence is a program of the Council on Crime and Justice, a nonprofit organization dedicated to addressing the causes and consequences of crime and violence. Since its inception, the center has worked with more than 30 rural communities to help address concerns about violence. Center staff include five regional coordinators who live and work in rural communities throughout Minnesota. Staff members offer technical assistance and a process to encourage collaboration among rural community leaders. Coordinators work with rural community stakeholder groups composed of leaders from education, health care, business, criminal justice, government, social services, clergy, and civic groups. Through the center's Working Together process, these stakeholder groups identify a violence priority, learn about that priority and how various systems within the community respond when violence occurs, and develop and implement collaborative actions to reduce violence.

For many of the rural communities that have chosen to work with the center, the major concern is youth violence. Community and criminal justice leaders statewide share this concern. Last summer, the center facilitated focus groups for the Office of Drug Policy and Violence Prevention in 10 communities across the state. The participants' comments reflect a perception that the level of violence among young people is increasing:

"We have problems with drugs and with violence. Is it more than other places? No. But has it changed and increased? Yes."

"The violence is more apparent and more prevalent than it used to be. The kind of things that children do to each other is more extreme."

"Our school problems reflect the community. Weapons in school are on the increase. There is random violence against youth. We've seen a tremendous rise in violence among younger grades."

## Strategies for Addressing Youth Violence

Communities throughout the state are responding to youth violence with approaches ranging from prevention strategies to school-based interventions to juvenile justice services programs for youthful offenders and victims of violence by youth. While there is no single solution to the problem, the following strategies consistently appear to hold promise: (1) working collaboratively; (2) applying restorative justice principles; and (3) building connections between youth and adults.

### Collaboration

Reducing youth violence is complex and requires multiple systems working together. In the center's Working Together process, key leaders, including medical professionals, come together to identify how law enforcement, social services, education, health care, and other systems currently respond to violence and what improvements could be made across systems.

The center acts as a catalyst for local collaboration—a key component of successful youth violence interventions. In Fairmont, Minnesota, for example, interdisciplinary teams adopted a strategy to share information to help reduce youth violence. The Fairmont Community Hospital administrator was a member of the Working Together group that initiated the idea of the team, as well as other actions to address youth violence. In Stevens County, the Stevens Community Memorial Hospital administrator and county public health nurse participated in the collaborative stakeholder group that worked, with the center's help, to develop a media campaign to raise awareness of violence as well as conduct cross-disciplinary training sessions on violence.

### Restorative Justice

In addition to fostering local collaborations, the Center for Reducing Rural Violence applies elements of a restorative justice philosophy by encouraging community leaders to focus on the needs of victims, offenders, and communities. Minnesota is a leader in implementing restorative justice programs, which emphasize (1) accountability—youths make right the wrong they have done; (2) community safety—youths lead crime-free lives; and (3) reintegration or competency development—youths are given opportunities to succeed in such areas as employment, education, independent living, family and peer relationships, and physical and mental health.

Rural communities and schools have adopted pro-

grams with a restorative philosophy, such as victim-offender mediation, family group conferencing, and restorative circles, which are based on Native American tradition. These restorative justice programs offer young people the opportunity to realize the impact of their actions and to collectively (with peers, victims, family members, and others) develop a plan to take responsibility, make amends, and prevent future violence. A victim-offender mediation involving young people who burglarized and ransacked the home of a family in Kandiyohi County was featured on the national television program "20/20" last year. The family who participated in the mediation appreciated having the opportunity to ask why their home was chosen (it just happened to be vacant; they were not targeted by the youths) and to share their feelings about what happened with one young offender who participated in the mediation. In addition to helping the victims of youth violence, confronting a victim can make a big difference for young offenders.

### Building relationships

Building healthy relationships and connections between young people and adults is another effective strategy to prevent youth violence. This strategy has been encouraged by rural community leaders, by Office of Drug Policy and Violence Prevention focus group participants, and by members of the Minnesota Supreme Court's Task Force on Juvenile Justice Services. Center staff have been working with the Supreme Court's task force over the past year to help identify strengths and weaknesses in juvenile justice system services. As part of this effort, Supreme Court task force members have described a model juvenile justice services system as one in which "every child is guaranteed a permanent, positive relationship with an adult."

Community Cares For Its Kids Day is one example of the actions rural communities are taking to foster positive relationships between young people and adults. Organized by the community of Waseca, with the assistance of the Center for Reducing Rural Violence, the April 20 event was a day for youth and adults to come together to learn about violence and personal safety, to have fun, and to support one another a year after the murder of a local teenage girl in April 1999. Other communities have developed mentoring programs or encouraged adult-youth relationships through employment or school programs.

### Other promising strategies

**Reducing alcohol and drug use.** Not only is alcohol and drug use associated with violence, but children born to alcohol- and drug-abusing mothers can have fetal alcohol syndrome or effects, which are precursors to violent behavior. Mahnomen County is one rural community that has expressly targeted reducing drug and alcohol abuse as a means of reducing youth violence.

**Supporting school success.** School failure is an important predictor of violence. Efforts that promote school success—as well as schoolwide interventions to reduce bullying and aggressive behavior and to teach conflict resolution and problem solving—have been implemented by rural communities to reduce youth violence. The Center for Reducing Rural Violence has also worked with schools that have chosen to implement curricula promoting respect.

**Working with families.** Early intervention and working with families is another promising strategy. Some rural communities have initiated home visits by trained professionals to help families deal with conditions that can lead to violence or to identify children who have witnessed family violence.

## Related Reading

*Byrne Advisory Committee Report. Creating a Safer Minnesota: A Strategic Plan to Fight Crime, Drugs and Violence through a More Effective Criminal Justice System. Minnesota Department of Public Safety, Office of Drug Policy and Violence Prevention, Dec. 1999:32-3.*

*Wilder Research Center. What Works in Preventing Rural Violence: Strategies, Risk Factors and Assessment Tools. Amherst H. Wilder Foundation, 1995.*

### Summary

These are only some of the means of reducing youth violence. What can community leaders—including those in the medical profession—do to reduce youth violence? Plenty.

We can all do more to educate ourselves and join with others—judges, attorneys, law enforcement personnel, social service workers, educators, business people, clergy, parents, and youth—to assess together how best to support healthy youth development and respond effectively to youth violence when it occurs. MM

*Cheryl Heilman is director of the Center for Reducing Rural Violence.*

**Instructor (Annually Renewable) orAssistant Professor of Medicine (Clinical Track or Annually Renewable)**
**Division of General Internal Medicine**
**University of Minnesota Medical School**

The Department of Medicine is seeking general internists to serve as clinician/educators in Division of General Internal Medicine at the University of Minnesota at 50-100% effort. Clinical activity will be in the areas of ambulatory clinical practice, medical consultation, and in-patient attending. Educational responsibilities include teaching of medical students and housestaff, and include, but are not limited to clinical preceptorship, teaching conferences, and curriculum development. Applicants for this position will demonstrate excellence in patient care, and creativity and enthusiasm for medical education. Scholarship in clinical and educational activities are strongly encouraged and will be supported. Requirements include an MD degree and board eligibility or board certification in Internal Medicine; advanced training in General Internal Medicine or practice experience are highly desirable. A competitive salary and an intellectually exciting environment are offered. Send CV and 3 references to:

Robert Howe, MD, Interim Director, General Internal Medicine, University of Minnesota, MMC 741, 420 Delaware St. S.E., Minneapolis, MN 55455 Phone: 612/624-8984

***The University of Minnesota is an equal opportunity educator and employer***

LOOKING FOR LOCUM TENENS?

LOOK FOR THE FRIENDLY DOCTOR



Whitesell
Medical Locums, Ltd.

Benefits for the Hospital/Clinic:
- Highly qualified physicians that are B.E./B.C.
- Fill your positions during illness, vacation and understaffing.
- Prevent loss of revenue.
- We handle all administrative details.
- Competitive rates

Benefits for the Physician:
- Experience a complete range of practice styles.
- Fully paid malpractice insurance
- Explore options or new services before making permanent decisions.
- A chance for senior physicians who no longer desire the responsibility of running a practice to stay clinically active.

Metro 763-682-5906
Toll Free 800-876-7171
Fax 763-684-0243
Web www.mnlocums.com

**ONCOLOGIST**

A prominent, Twin City metropolitan Cancer program is seeking a board-certified oncologist/hematologist to support a comprehensive, integrated, community cancer program.

If you are an experienced oncologist who would like to help create a new model of care delivery that supports physician autonomy and leadership as well as holistic patient care, please contact us. Confidentiality is assured.

*BENEFITS INCLUDE:*
- Aesthetically pleasing environment
- Autonomous practice with multi-disciplinary Team Support
- Opportunity for innovation in serving the community
- Attractive salary/incentive plan
- Relocation expenses reimbursed

Please send your CV in confidence to:
NAS REPLY SERVICE
Dept. 7mp755
8009 34th Avenue South
Minneapolis, MN 55425

**Blaine Medical Center**

is seeking BC/BE Family Practitioner to join four Family Practitioners in a growing practice located in northern tier suburb of the Twin Cities.

Excellent salary and benefit package. Shareholder potential after one year.

Blaine Medical Center is affiliated with Multicare Associates, an independent physician owned practice with locations in Blaine, Fridley, and Roseville.

CONTACT:
**Steve Bentz, M.D. at 612-785-8544 or Jeannine Schlottman at 612-785-3338.**

www.multicare-assoc.com

# Pediatric Firearm Injury in Minnesota, 1998

## *Fatal and Nonfatal Firearm Injuries among Minnesota Youth*

Jon Roesler, M.S., and Melissa Ostercamp, B.S.N., R.N.

ABSTRACT

**Objective**: Minnesota hospitals began to assign E-codes (external cause of injury) to hospital discharge data in 1998. It is now possible to describe the epidemiology of medically treated firearm injury (FI) cases in Minnesota by combining hospital discharge data with injury data from other sources. This population-based investigation provides a preliminary epidemiologic description of fatal and nonfatal firearm injuries in children and adolescents in Minnesota during 1998.

**Methodology**: Pediatric firearm injury cases were identified from the Minnesota Department of Health's Minnesota Trauma Data Bank, a population-based data system for injury surveillance in Minnesota. To qualify for the study, the patients had to be Minnesota residents, younger than 20 years old at the time of injury, and injured by a firearm in 1998.

**Results**: The 175 cases identified yielded an overall FI rate of 12.5/100,000, a mortality rate of 2.4/100,000, and a nonfatal to fatal ratio of 4.1:1. Eighty-five percent of patients were male; 15% female. The largest proportion of firearm injuries were assault-related (45%), followed by unintentional (34%), and self-inflicted (15%). Adolescents aged 15–19 years accounted for 79% of the injuries, and children 14 or younger, 21%, yielding rates of 37.6/100,00 and 3.5/100,000, respectively. Twenty-two percent of 15–19-year-olds and 11% of children 0 to 14 died, yielding mortality rates of 8.1/100,000 and 0.4/100,000, respectively. Where race was documented, whites represented 53% of the cases; African Americans, 32%; Native Americans, 8%; and Asian/Pacific Islanders, 7%; yielding race-specific rates of 4.1/100,000, 54.3/100,000, 30.5/100,000, and 12.1/100,000, respectively. Sixty-six percent of the patients were residents of the Minneapolis/St. Paul metro area and 33% were residents of Greater Minnesota, yielding rates of 16.0/100,000 and 8.6/100,000, respectively. In the Twin Cities metro area 24% of injury cases were unintentional, 5% were self-inflicted, 65% were assaultive, and 6% were undetermined. In Greater Minnesota 53% were unintentional, 33% were self-inflicted, 9% were assaultive, and 5% were undetermined.

**Conclusions**: Minnesota's 1998 rates for firearm injury were less than half the 1997 national rate. The state's FI rates show significant disparities by race and region of residence. More FI data will have to be collected over more years to describe and identify trends and multifactor relationships. Policymakers need to ensure that firearm injury continues to be monitored and assessed in Minnesota.

Firearm injury (FI), both fatal and nonfatal, is epidemic in the United States, with firearms second only to motor vehicle crashes in causing injury death.

In the early 1990s, firearm injury mortality increased dramatically among children and adolescents. Now firearms kill more teenagers than all "natural causes" combined.[1] Every year firearms kill more than 4,000 children and adolescents younger than 20 and an estimated 45,000 additional cases of nonfatal FI occur among those younger than 25. In 1997, FI deaths accounted for 22.5% of all injury deaths in children and adolescents 1–19 years old. Among black males 10–34, FI is the leading cause of death.[2] Clearly, firearm injury is a public health crisis.

Because of a lack of fundamental data, inadequate funding, and political obstacles, however, most state health departments have only been able to collect essential information on FI that results in death. Yet, the effectiveness of public health remedies to reduce firearm injuries depends on the completeness of the data. Incomplete public health surveillance systems have left these basic questions unanswered:

- How many people are injured by firearms?
- How much of firearm injury is related to alcohol or drugs?
- How do urban and rural patterns of firearm injury differ?[2-3]

In Minnesota, hospitals voluntarily submit their hospital discharge data to the Minnesota Hospital and Healthcare Partnership (MHHP), the trade organization of Minnesota hospitals and health systems. Beginning in 1997, hospitals in the Twin Cities metro area have voluntarily assigned external cause of injury codes (E-codes) to the inpatient hospital discharge data they submit to the MHHP. In 1998, E-coding of hospital discharge data was voluntarily extended statewide and included outpatient hospital data as well.[4]

With the E-coding of hospital discharge data has come the potential to more readily track firearm injuries. By combining cases identified from hospital discharge data with cases from other sources of injury data, it is now possible to describe the epidemiology of medically treated FI events in Minnesota. We undertook this population-based investigation to provide a preliminary epidemio-

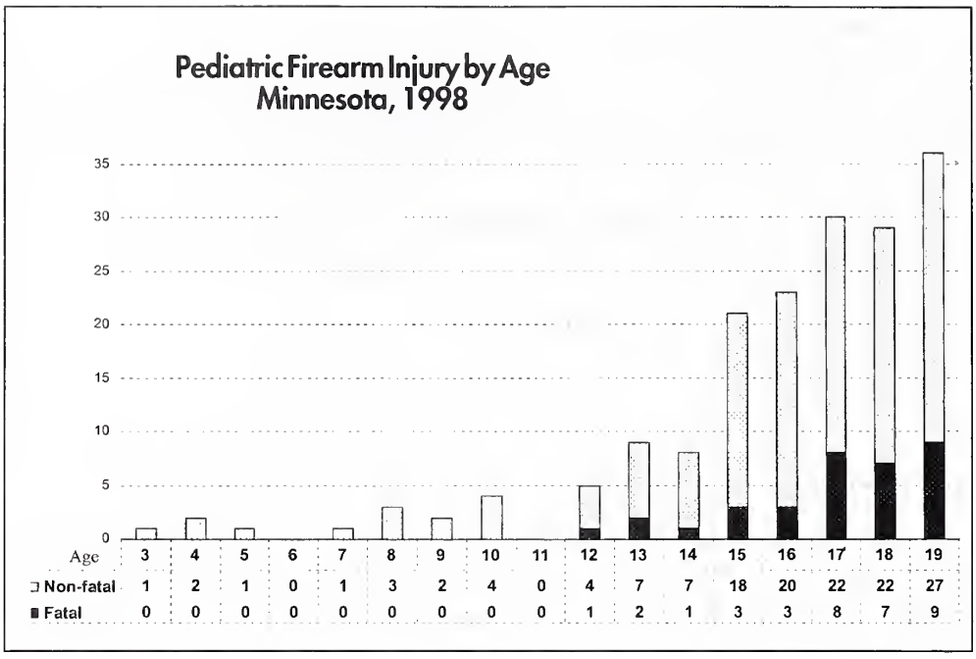



**Figure 1**

logic description of fatal and nonfatal firearm injuries in children and adolescents in Minnesota during 1998.

## *Methodology*

Cases were identified from the Minnesota Department of Health's Minnesota Trauma Data Bank (MTDB), a population-based data system for injury surveillance in Minnesota. The MTDB conforms to the injury surveillance recommendations for state health departments[5] and data element definitions for the National Trauma Data Bank.[6] It has nine subsystems.

Four of the nine subsystems were used to identify cases of pediatric FI: injury-related death data from death certificates, the Minnesota Traumatic Brain and Spinal Cord Injury Registry,[7] severe trauma data from participating hospital trauma registries, and hospital discharge data, including both in- and outpatient data.[4] Depending on the nature and severity of the FI, the same case could be found in more than one subsystem (e.g., a hospital treated a patient with FI to the head, the patient was transferred to a trauma center, and the injury resulted in death). Duplicate cases were identified and eliminated.

Variables for the injury death data were limited to those found on the Minnesota Certificate of Death.[8] Variables for the other three data systems were abstracted with the Minnesota Report of Injury.[9] The hospital discharge data also included variables from the UB92 universal billing form.[10] Variables for this preliminary analysis included age at time of injury, gender, race, residential ZIP code, blood-alcohol level, illicit drug use, and coded mechanism and intent of injury. Cases identified only from injury death data did not include information about blood-alcohol level or illicit drug use.

The ICD-9[11] and ICD-9-CM[12] codes for identifying firearm injuries were E922.0-.3, .8, .9; E955.0-.4; E965.0-.4; E985.0-.4; E970, which are consistent with codes used by the Centers for Disease Control and Prevention[13,14] to identify firearm injuries, excluding air gun injuries. Patients had to be Minnesota residents younger than 20 years old at the time of injury and injured in 1998.

ZIP code of residence was used to classify patients as residents of the seven-county Twin Cities (Minneapolis/St. Paul) metro region (total population: 2,544,353; pediatric population, 726,118) or the remaining 80-county Greater Minnesota region (total population: 2,237,911; pediatric population, 675,187). Region-, age-, and race-specific population estimates for 1998, used in calculating rates, were obtained from Minnesota Planning.[15]

## *Results*

Thirty-four FI cases were identified from injury death data, 12 cases from the Minnesota Traumatic Brain and Spinal Cord Injury Registry, 60 cases from the severe trauma data, and 133 cases from hospital discharge data, for a possible 240 cases. After linking cases across the data subsystems and eliminating duplicates, 175 cases remained, yielding an overall FI rate of 12.5/100,000, an FI mortality rate of 2.4/100,000, and a nonfatal to fatal ratio of 4.1:1.

Eighty-five percent of patients (149) were male and 15% (26) were female. The largest proportion of firearm injuries were assaultive (45%; n=78), followed by unintentional (34; n=59), and self-inflicted (15%; n=26). Six percent (10) were undetermined and 1 percent (2) had no information about intent.

Adolescents 15–19 years old accounted for 79% (139) of FI cases and children 14 or younger accounted for 21% (36) (see Figure 1), yielding FI rates of 37.6/100,00 and 3.5/100,000, respectively. Twenty-two percent (30) of FI in 15–19-year-olds resulted in death, and 11% (4) of FI in 0–14-year-olds resulted in death, yielding FI mortality rates of 8.1/100,000 and 0.4/100,000, respectively. Where race was documented, whites represented 53% (52) of the cases; African Americans, 32% (32); Native Americans, 8% (8); and Asian/Pacific Islanders, 7% (7); yielding race-specific rates of 4.1/100,000, 54.3/100,000, 30.5/100,000, and 12.1/100,000, respectively (see Figure 1). Seventy-six patients were of undocumented or unknown race.

Detectable levels of blood alcohol were documented for eight patients, and another five patients had other documented clinical evidence of alcohol use. In 34 cases there was documentation of no detectable blood alcohol, while 26 patients had no blood-alcohol test done and clinical evidence did not suggest alcohol use. No information about alcohol use was documented for the remaining 102 cases. Positive tests for illicit drug use were documented in four cases.

## *Twin Cities Metro vs. Greater Minnesota*

Sixty-six percent (116) of the firearm injuries involved residents of the Twin Cities metro area and 33% (58) involved residents of Greater Minnesota, yielding rates of 16.0/100,000 and 8.6/100,000, respectively. Less than 1% (1) of patients could not be assigned to either region because of no known ZIP code. Twenty-one percent of the firearm injuries occurred in one of two ZIP codes: 19 cases in 55407 (south Minneapolis) and 17 cases in 55411 (north Minneapolis).

In the Twin Cities metro area 24% (27) of injuries were unintentional, 5% (6) were self-inflicted, 65% (73) were assaultive, and 6% (7) were undetermined (three cases were missing information about intent). In Greater Minnesota, 53% (31) of injuries were unintentional, 33% (19) were self-inflicted, 9% (5) were assaultive, and 5% (3) were undetermined (see Figure 2).

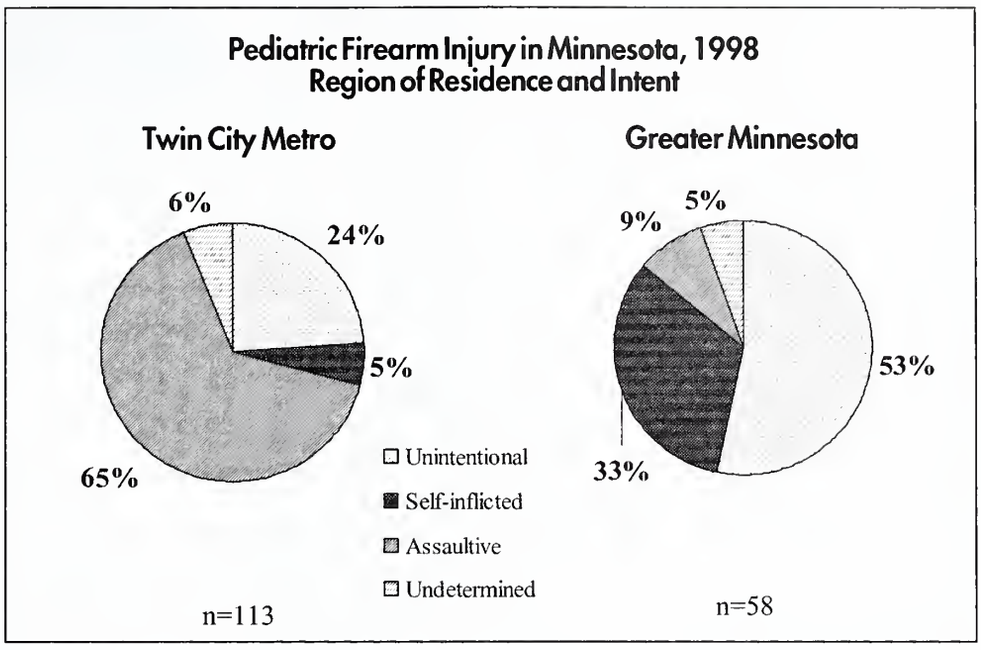



**Figure 2**

## *Conclusion*

In 1997 the rate of FI deaths among U.S. adolescents 15–19 years old was 18.8/100,000, and among children 0–14, 1.1/100,000.[2] Minnesota's 1998 rates were less than half the national rate. The rates in Minnesota show significant disparities by race and region of residence. Given the large number of cases with unknown or undocumented race (43% of the total), however, caution must be used before drawing firm conclusions. Nonetheless, the rates of FI for the African-American and Native-American pediatric populations exceeded the overall state rate by more than four and two times, respectively. Further disparity is shown by the almost 2:1 rate differential between the Twin Cities metro area and Greater Minnesota. The fact that 21% of pediatric FI cases came from two Twin Cities metro ZIP codes is particularly alarming.

The differences between the Twin Cities and Greater Minnesota in the intentionality are also striking. Assaultive FI dominates in the Twin Cities, while unintentional and self-inflicted FI are dominant elsewhere in the state.

Clearly, different prevention strategies are needed for different areas of the state. In recognition of this, the Minneapolis Department of Health and Family Support has recently recommended that the state's power of preemption (Minnesota Statutes 471.633–471.635) be amended to give local units of government more flexibility and authority to regulate the sale, purchase, and transfer of firearms, ammunition, and their respective components.[16]

The Minneapolis Youth Homicide Study noted that more than 59% of the victims had detectable levels of blood alcohol at the time of death.[17] Furthermore, alcohol is frequently associated with injuries of all types. As a result, it is somewhat surprising to find such a small proportion of victims in this population with detectable levels of blood alcohol. However, the vast majority of cases contained no documentation of a blood-alcohol test.

Blood alcohol should be tested in FI victims. In fatal cases, blood alcohol is usually tested and included in the medical examiner reports, but those reports were not abstracted for this study. While hospital lab results may not always be found in the medical record, they are available to the attending medical staff through online and interactive computer systems. Nonetheless, the lack of documentation in the medical record clearly thwarts efforts to adequately describe the relationship of alcohol to FI in children and adolescents.

Mortality data from death certificates provide a relatively well-developed, validated, and accepted data source for public health surveillance. The ratio of nonfatal to fatal FI has been documented nationally at 4.1:1 for those younger than 25 years.[2] The same ratio for Minnesotans 0–19 years old suggests that most, if not all, nonfatal cases have been identified. By including nonfatal, hospital-treated FI as well as fatal FI, this study greatly increases the ability to describe pediatric FI in Minnesota. However, another study of FI in a Minnesota third-party payer population documented that 27% of the initial treatment for FI took place in an ambulatory-based setting such as a physician's office, outpatient clinic, or home site.[18] While including hospital-treated nonfatal FI describes the epidemiology of FI more completely, it is possible that some cases of FI are still not detected by the current system.

The first year for which both fatal and nonfatal FI could be described for all of Minnesota was 1998. This preliminary report, which was done at the request of *Minnesota Medicine*, is part of a larger effort to describe all FI that occurred during 1998 in Minnesota. Additional data from more years are necessary to describe and identify trends and multifactor relationships

among FI cases. Furthermore, FI surveillance requires ongoing data collection,[19] and a public health data system has been identified as an important public health strategy for responding to FI.[2,16,20] Because the funding for this study is time-limited, policymakers need to ensure that public health monitoring and assessment of firearm injury in Minnesota continues. MM

*Jon Roesler is senior epidemiologist at the Minnesota Department of Health. Melissa Ostercamp is a graduate student in the School of Public Health at the University of Minnesota.*

## *Acknowledgments*

The authors wish to thank Jean Behringer, Sharavi Gandham, M.S., Anna Gaichas, M.S., Mark Kinde, M.P.H., and Evelyn Anderson at the Minnesota Department of Health for their assistance in this study.

Funding for this study was provided by the Minnesota Traumatic Brain and Spinal Cord Injury Registry Program and cooperative agreements (U17/CCU515078 and U17/CCU514061) with the National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

### REFERENCES

1. Carter Center Consultation on the Crisis of Children and Firearms. Not even one. Atlanta: The Carter Center, February 23-5, 1994.
2. American Academy of Pediatrics Committee on Injury and Poison Prevention. Firearm-related injuries affecting the pediatric population. Pediatrics 105(4):888-95.
3. Hayes R, Lebrun E, Christoffel KK. Missing in action: health agencies lack critical data needed for firearm injury prevention. Chicago: HELP Network, 1998.
4. Injury and Violence Prevention Unit. Nonfatal injury in Minnesota, 1998. St. Paul: Minnesota Department of Health, June 2000.
5. Planning Comprehensive Injury Surveillance in State Health Departments Working Group. Consensus recommendations for injury surveillance in state health departments. Georgia: State and Territorial Injury Prevention Directors' Association, September 1999.
6. Committee on Trauma. National trauma data bank data dictionary. Chicago: American College of Surgeons, Aug. 1, 1996.
7. Injury and Violence Prevention Unit. Traumatic brain and spinal cord injury in Minnesota 1993–1997. St. Paul: Minnesota Department of Health, June 2000.
8. Minnesota Center for Health Statistics. 1998 Minnesota Health Statistics. St. Paul: Minnesota Department of Health, January 2000.
9. Injury and Violence Prevention Unit. Report of injury, Version 5 Data Dictionary. St. Paul: Minnesota Department of Health, May 2000.
10. Minnesota State Uniform Bill Committee. Minnesota UB-92 Manual. St. Paul: Minnesota Hospital and Healthcare Partnership, 1996.
11. World Health Organization. Manual of the international classification of diseases, injuries, and causes of death, 9th revision. Geneva: World Health Organization, 1977.
12. Public Health Service and Health Care Financing Administration. International classification of diseases, 9th revision, clinical modification. Washington: Public Health Service, 1991.
13. McLoughlin E, Annest JL, Fingerhut LA, et al. Recommended framework for presenting injury mortality data. MMWR 1997;46(RR-14):1-30.
14. Warner M, Barnes PM, Fingerhut LA. Injury and poisoning episodes and conditions: National Health Interview Survey, 1997. Vital Health Stat 2000;10 (202):1-38.
15. Minnesota Planning. Minnesota data and maps. http://www.mnplan.state.mn.us/ Accessed July 21, 2000.
16. Gonzalez JL. Aiming for a safe city: reducing gun tragedies in Minneapolis. Minneapolis: Minneapolis Department of Health and Family Support, April 2000.
17. Barnes-Josiah D. Minneapolis youth homicide study: victims and charges, 1994–1995. Minneapolis: Minneapolis Department of Health and Family Support, May 1996.
18. Carlson AM. A claims data analysis of costs associated with firearm injuries. Minneapolis: Health Care Coalition on Violence, unpublished.
19. Thacker SB, Berkelman RL. Public health surveillance in the United States. Epidemiol Rev 1998;10:164-90.
20. American Public Health Association. 1998 public policy statement 9818: handgun injury reduction. http://www.apha.org/.

**INTERNAL MEDICINE PHYSICIANS**

United Pain Center in St. Paul is seeking two BE/BC internal medicine physicians interested in working in a multidisciplinary setting managing patients with acute, subacute and chronic pain. This is a challenging opportunity to work with a highly motivated and successful team in an outpatient setting. The team consists of anesthesiologists, internal medicine, nurse practitioners, psychologist and social worker. Our center offers a unique blend of interventional procedures, case management, psychological services and complementary therapies with consultative services provided to the hospital. Contact Allina Hospitals and Clinics, Physician Recruitment, 8450 City Centre Drive, St. Paul, MN 55125.
800-248-4921 or
recruit@allina.com.
Not a J1 site.

www.allina.com

ALLINA.
Hospitals & Clinics

Banner Health System
*New directions in healthcare*

**Increase Autonomy, Enhance Your Lifestyle in Lisbon, North Dakota**

Practice rural medicine in a 19-bed hospital and newly remodeled MOB just 70 miles from Fargo, ND, and Moorhead MN, with a combined population of 160,000. Lisbon is a family-oriented community with an excellent school system. Hospital and practice are supported by Banner Health System, located in Fargo, ND, and Phoenix with 30 hospitals in 13 states. The practice requires OB and ER call rotation. Very competitive salary and great benefit package. Contact Kathy Nikunen at 800-767-7429, Ext. 7690 or send CV to:

**Banner Health System,**
**4310 17th Ave., S.W.,**
**Fargo, ND 58103**
**Fax 701-277-7636**

**kathy.nikunen@BannerHealth.com**

## *Dermatology, General Surgery, Internal Medicine, Neurology and Pediatrics*

There are immediate openings at Brainerd Medical Center for the following specialties: Dermatology, General Surgery, Internal Medicine, Neurology, and Pediatrics.

**Brainerd Medical Center, P.A.**

- 41-Physician independent multi-specialty group
- Located in a primary service area of 50,000 people
- Almost 100% fee-for-service
- Excellent fringe benefits
- Competitive compensation
- Exceptional services available at 162-bed local hospital, St. Joseph's Medical Center

**Brainerd, Minnesota**

- Surrounded by the premier lakes of Minnesota
- Located in central Minnesota less than 2½ hours from the Twin Cities, Duluth and Fargo
- Large, very progressive school district
- Great community for families

**Call collect to Administrator:**
Curt Nielsen
(218) 828-7105 or (218) 829-4901
2024 South 6th Street
Brainerd, MN 56401
email: bmc@brainerd.net
internet:www.brainerdmedicalcenter.com

BMC

# Pediatricians

HealthPartners is dedicated to improving the health of our members and our community. It is our mission--and a quality we look for in the physicians who care for our patients. We offer competitive salaries, top benefits, challenging work--plus the opportunity to make a real difference in the health of the community you serve.

We have openings for BC/BE pediatricians at these Twin Cities' area clinics:

- **HealthPartners Brooklyn Center Clinic: Full-time**
- **HealthPartners Woodbury Clinic: Full-time**
- **HealthPartners West Clinic: Part-time (St. Louis Park)**
- **HealthPartners Coon Rapids Clinic: Part-time**

Fax your CV and cover letter to us at 952-883-5395 or mail to: HealthPartners, Physician Services, P.O. Box 1309, Minneapolis, MN 55440-1309. For more details, email: sandy.j.lachman@healthpartners.com or lori.m.fake@healthpartners.com. Call us at 952-883-5338, 952-883-5337 or 800-472-4695. EOE/AA Employer

HealthPartners®
*Medical Group & Clinics*

*HealthPartners' mission is to improve the health of our members and our community.*

North Memorial Health Care®
*An Organization of Health Care Professionals*

*North Memorial is an independent, full-service facility located in the northwest Twin Cities with more than 700 physicians in more than 40 specialties. We are known as the trauma center in the region with other notable programs including the Hubert H. Humphrey Cancer Center, North Heart Center, North Rehabilitation Center, and the Women's and Children's Center. We also strongly promote physician practice opportunities within our associated clinics, including those that are independently owned, joint ventures and hospital owned. Which means you can choose from large or small and multi or single specialty practice options in metro, suburban or rural locations. North Memorial offers very competitive salaries and excellent fringe benefits. Sounds like the perfect job, doesn't it?*

*Positions now available for BE/BC physicians in:*

- Family Practice
- OB/GYN
- Internal Medicine
- Gastroenterology
- Hematology/Oncology
- Emergency Medicine
- Pediatrics
- Orthopaedic Surgery
- Urgent Care
- Dermatology

For consideration to be a part of our team please mail, fax, or e-mail cover letter and C.V. to:

Mark A. Peterson, Physician Recruiter
North Memorial Health Care
3300 Oakdale Avenue North
Robbinsdale, MN 55422
Phone: (800) 275-4750 or (763) 520-1336
Fax: (763) 520-5997
E-mail: mark.peterson@northmemorial.com

# Firearm-related Suicide in Minnesota

## *A Picture of Morbidity and Mortality*

Jill Heins Nesvold, M.S., and Neal Holtan, M.D., M.P.H.

Every year in Minnesota, about 240 people commit suicide using a firearm. More than half of all suicides in the state are committed with a firearm. The notion that another method would be used if a gun was not available is false. According to the American Association of Suicidology, people do not shift methods of committing suicide.

### *Morbidity Data*

Firearm-related injuries that are treated in a hospital or emergency department in Minnesota are tracked through the state's voluntary E-coding system, which indicates the external cause of injury. The data are aggregated by the Minnesota Hospital and Healthcare Partnership. Although this system captures the majority of injuries, undoubtedly some are not reported.

In Minnesota, relatively few individuals are treated for firearm-related suicide attempts as inpatients or in emergency departments, reflecting the fact that most (more than 90%) firearm-related suicide attempts end in death.[1] In 1998, 21 individuals in Minnesota received in-patient medical treatment for self-inflicted firearm injuries. Of these, 90% were male. The total hospital charges, excluding physician fees, were approximately $676,600.

In 1998, five Minnesotans were treated in emergency departments for self-inflicted firearm injuries. Four of them were male. The total charges, excluding physician fees, were approximately $22,233.

### *Suicide and Guns in the Home*

More than 90% of people who commit suicide with a firearm already have the gun in the house.[2] Guns are often used for self-destructive purposes by their legal owners or members of the owner's family. Although some gun owners reportedly keep a firearm in their home for protection or self-defense, only 2% of gun-related deaths in the home result from a homeowner shooting an intruder; 3% are unintentional child shootings, 12% are the result of adult partners shooting one another, and 83% are the result of a suicide.[2]

The great majority of firearm-related deaths every year in Minnesota are suicides, followed far behind by homicides and unintentional injuries. Physicians have a role in preventing firearm-related suicide in the course of routine health care by questioning patients and families about access to guns, especially patients who are alcoholic,

Table 1

*Minnesota firearm-related suicide rate, by year (per 100,000 population)*

| Year | Rate |
|---|---|
| 1996 | 5.6 |
| 1997 | 4.6 |
| 1998 | 5.1 |

Over 90% af firearm-related suicides in Minnesata are cammitted by males. White males cammit suicide with firearms at almast twice the rate af males af calar.

Table 2

*Minnesota firearm-related suicide rate, by gender and year (per 100,000 population)*

| Gender | 1996 | 1997 | 1998 |
|---|---|---|---|
| Females | 1.3 | 0.9 | 0.9 |
| Males | 9.9 | 8.6 | 9.5 |
| Total | 5.6 | 4.6 | 5.1 |

Gun-related suicides are highest in Greater Minnesata and lawest in the surburban seven-caunty metra area.

Table 3

*Minnesota firearm-related suicide rate, by geography (per 100,000 population)*

| Year | Ramsey County | Hennepin County | 7-County Metro Area | Greater Minnesota | Minnesota |
|---|---|---|---|---|---|
| 1996 | 5.2 | 4.4 | 4.5 | 6.9 | 5.6 |
| 1997 | 4.5 | 4.3 | 3.8 | 5.7 | 4.6 |
| 1998 | 4.5 | 4.5 | 4.0 | 6.4 | 5.1 |

## Risk Factors for Suicide[1]

- Suicide attempts in the past.
- Mental illness, most commonly depression.
- Stressful life events (e.g., death of a loved one, recent loss of employment).
- Family history of suicide.
- Alcoholism and certain demographics (two-thirds of males who commit suicide with a firearm in Minnesota are between 20 and 49 years of age).

REFERENCE

1. Personal communication with the American Foundation for Suicide Prevention and American Association of Suicidology.

depressed, or have other risk factors. Physicians can support surveillance of firearm injuries by public health authorities and participate in community advocacy to reduce firearm injury. MM

*Acknowledgments*

Thank you to the Minnesota Department of Health, Vital Statistics, and the Minnesota Hospital and Healthcare Partnership for providing the data for this article. For more information, call 763/427-5310 or visit the institute's Web site at www.miph.org/guns.

*Jill Heins Nesvold is the health promotion specialist for the Minnesota Institute of Public Health. Neal Holtan is the medical director for St. Paul-Ramsey County Department of Public Health and the Minnesota Institute of Public Health and is in private practice in general preventive medicine.*

REFERENCES

1. Wintemute G, Teret SP, Kraus, JF, Wright MW. The choice of weapons in firearms suicides. Am J of Public Health 1998;78 (7)824-26.

2. American Foundation for Suicide Prevention. Firearms and suicide. Retrieved November 19, 1999, from www.afsp.org/suicide/firearms.htm.

**80 years and Still Growing.**

*We're looking for BC/BE physicians for the following positions:*

**Internal Medicine/Family Practice**—We have multiple opportunities available in our internal medicine department and family practice departments at the main clinic in Mankato. The Mankato Clinic is a multi-specialty group practice with 75+ providers and a service area population of over 250,000. Our scenic riverside community has big city amenities, services, shopping and restaurants all without the traffic hassles.

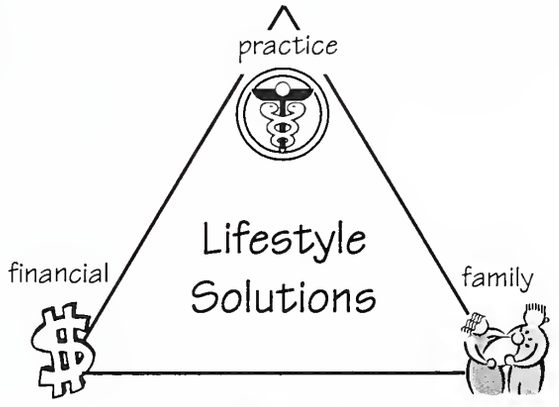
**Radiology**—Exceptional opportunity to join our Radiology Department. Brand new, state-of-the-art volume acquisition multi-detector, spiral CT scanner on line in March necessitates expanding this well established department. This opportunity also includes reading MRI from the region's newest open MRI. Desirable call schedule provides time to enjoy life in this scenic river valley community.

We offer a guaranteed first year salary with incentive pay plan. Our full range of benefits includes a generous retirement plan and liberal time-off policy.

**For more information call Dr. Byron C. McGregor, Medical Director at 507-389-8548 or Dennis Davito, Director Physician Recruitment, 507-389-8654 or send CV.**

Mankato Clinic
1230 East Main Street
Mankato, MN 56002-8674
FAX: 507-388-3401

P R O V I D I N G




**SOLUTIONS**

- **Emergency Medicine**
- **Locum Tenens**

*ACUTE CARE, INC.*

For more information, please call
**800.729.7813 or 515.964.2772**
e-mail address: jeffw@acutecare.com
home page: http://www.acutecare.com

# Calculating the Costs of Gun Injuries

## *A New Methodology*

Janny Dwyer Brust, M.P.H., Angeline Carlson, Ph.D., Sara Seifert, M.P.H., and Mary Braddock, M.D., M.P.H.

ABSTRACT

**A new method for assessing the costs of gun injuries to a health system examines data on paid amounts, comprehensive medical expenses, and expenses over time. The authors extracted claims using injury diagnosis codes from billing forms and medical charts. The study demonstrates that a claims database can be used to accurately measure health care costs associated with gun injuries. The study is the first to include gun-related injuries treated in ambulatory care settings and to track actual payments over time.**

Gun injuries are expensive for society in general and health care in particular. Trying to measure the financial burden for health care, however, has been problematic. Using a new methodological approach, we conducted a feasibility study to improve the ability to calculate gun-related costs.

Recent studies have provided estimates of gun-related medical costs. One national study, for example, estimated total lifetime medical costs resulting from gunshot injuries at $2.3 billion in 1994, with the mean at $17,000 per injury, including fatal injuries, injuries requiring hospitalization, and emergency department–treated injuries.[1] In recently published research, the mean acute care costs for hospitalized gunshot injury survivors ranged from $11,852 to $14,757 per injury[1-5] and emergency department costs ranged from $1,321 to $4,568 per injury.[1-2,6]

Researchers assess the costs of injuries in a variety of ways. Typically, however, only hospital fees can be measured directly; the actual cost of gun injuries has remained elusive. One reason is the difference in what gets counted (e.g., all medical costs vs. hospital fees only, actual vs. estimated expenses or a combination, one-time vs. long-term expenses, and charges vs. costs vs. payments). Charges refer to the amount billed, whereas costs refer to the dollars incurred to provide care. Payment refers to the amount paid for the care.

## *Methods*

To assess the medical expense of gun injuries to a health system, we created a method that captures paid amounts, gives information on a comprehensive set of medical expenses including ambulatory care, and measures expenses over time.

Using an independent practice association health plan with a service area in the Midwest, we extracted claims that included one or more of the E-codes listed in Table 1. E-codes reveal cause of injury (e.g., suicide, homicide, unintentional) when there is an accompanying injury diagnosis. These codes are found on billing forms, and code documentation is provided in medical charts by physicians.

The administrative claims database contains all medical claims for its enrollees, including claims from providers and facilities as well as pharmacies. This database includes commercial and publicly insured populations. Financial data include actual amounts paid. The database is created by linking health care provider information and enrollment information for each member using a member ID number. Data are analyzed in the aggregate to ensure client privacy.

## *Results*

In all, 63 individuals with gun-related injuries were identified. Of those injuries, 59% (37) were unintentional; 30% (19) were from assaults, and for 11% (7) intentionality was unknown. Average patient age was 25.1 years (range 3–92 years) and 75% (47) were males. Initial treatment was primarily in the emergency department (44%), followed by inpatient hospitalization (28%) and ambulatory care (27%). The average inpatient hospitalization was 9.6 days. Table 2 shows payments for these injuries.

The total amount paid for initial treatment was $459,218. Most of this went for medical services ($458,382); the rest for pharmacy ($836). Follow-up treatment added

$68,248 ($64,537 medical; $3,711 pharmacy). The mean and median payments per injury (including all injuries) were $8,372 and $1,425, respectively. One person's three-month total was $278,000, or 49% of the entire amount paid. Excluding that individual, the mean was $4,493; the median, $1,367. Our estimate is probably lower than estimates in other studies because we captured the less serious injuries that were treated in ambulatory care settings and used paid amounts in our calculations.

Table 1

*E-codes included in analysis*

| | |
|---|---|
| E955.0-E955.4 | suicide and self-inflicted injury by firearms |
| E965.0-E965.4 | assault by firearms |
| E970 | injury due to legal intervention |
| E922-E922.9 | accident caused by firearm missile |
| E985.0-E985.4 | injury by firearms, undetermined whether accidental |

Table 2

*Mean payments for three months of treatment for gun injuries*

| Initial Setting | Number | Without Outlier Dollars | With Outlier Dollars |
|---|---|---|---|
| Outpatient | 17 | $1,884 | $1,884 |
| Emergency Department | 28 | $2,012 | $2,012 |
| Hospital | 18 | $11,189 | $24,394 |

## *Discussion*

This study demonstrates that a claims database can be used to accurately measure the health care costs associated with injuries, in this case, gun injuries. In addition, this study is the first to capture gun-related injuries treated in ambulatory care settings and to track actual payments over time.

Although our approach has many advantages over other methodologies, it does have some limitations. For example, we tracked patients for only three months, but some patients had medical costs that will obviously be lifelong. Also, the study included data from only one health plan. Furthermore, this study only included people with nonfatal firearm injuries. Also, the ability to identify individuals with gun injuries depends on the documentation provided in the medical records and subsequent E-coding. Reimbursable amounts also depend on benefit structures and do not include out-of-pocket expenses. Finally, office visits may include some other expenses beyond those incurred for the gunshot injury. Despite these limitations, our methodology provides a more accurate way of assessing costs. A larger study, with data from additional health plans, should be conducted to verify our findings.

This study provided information about gun injuries besides costs. We were surprised to learn that some victims have relatively minor gunshot injuries that can be treated in ambulatory care settings. That means the estimate of 800 gun-related injuries and deaths a year in Minnesota is an underestimate, since it includes only fatal injuries, inpatient hospitalizations, and emergency department visits.

At the other end of the spectrum, some very serious injuries create a significant financial burden for our health care system throughout the victim's life. In our study, one individual accounted for 49% of the total gun-related health care costs paid. When this individual's expenditures were excluded, the mean payments for treating a gun injury fell by nearly half, from $8,372 to $4,493.

Finally, although these health care costs provide us with one measure of gun injuries' burden to society, we have no way to calculate the lifelong devastation of a single, tragic incident to a victim, the family, and the community. Compounding the tragedy is the fact that these injuries are totally preventable. Being able to accurately measure the costs and causes of gun injuries and characteristics of those injured is critical because this information provides direction for the design and implementation of prevention programs. MM

### *Acknowledgments*

This study was designed and managed by the Health Care Coalition on Violence, Data Collection and Research Committee. Funding was provided by Allina Health System Foundation.

*Janny Dwyer Brust is the vice president of public health, Allina Health System Foundation. Angeline Carlson is the director of research, Data Intelligence Consultants. Sara Seifert is the community health planner, Allina Health System Foundation, and Mary Braddock is the medical director of community health and preventive medicine, Children's Hospitals and Clinics.*

### REFERENCES

1. Cook PJ, Lawrence BA, Ludwig J, Miller TR. The medical costs of gunshot injuries in the United States. JAMA 1999;282:447-54.
2. Goldweber RT. Diverse burdens to health care caused by weapon violence [letter]. J Trauma 1995;39(5):1022.
3. Kizer KW, Vassar MJ, Harry RL, Layton KD. Hospitalization charges, costs, and income for firearm-related injuries at a university trauma center. JAMA 1995;273: 1768-73.
4. Mock C, Pilcher S, Maier R. Comparison of the costs of acute treatment for gunshot and stab wounds: further evidence of the need for firearms control. J Trauma 1994;36(4):516-22.
5. Wintemute GJ, Wright MA. Initial and subsequent hospital costs of firearm injuries. J Trauma 1992;33(4):556-60.
6. Miller TR, Cohen MA. Costs of gunshot and cut/stab wounds in the United States, with some Canadian comparisons. Accid Anal Prev 1997;29(3):329-41.

# *A Calendar of Continuing Medical Education Courses*

*Provided as a service of the MMA Committee on Accreditation and CME.* For assistance with scheduling meetings or for information on future medical meetings and CME courses, please contact the MMA office: 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; 612/378-1875. For a complete listing of our calendar, visit the MMA Web site at www.mnmed.org. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

## SEPTEMBER 2000

Sept. 8 **Minnesota Surgical Society Fall Meeting** Minnesota Medical Association in joint sponsorship with Minnesota Surgical Society; Rochester, MN. CONTACT: Colleen Jensen, Minnesota Surgical Society, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/362-3737; cjensen@mnmed.org.

Sept. 11-15 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Sept. 14 **Hultkrans Seminars 2000: Creating Margins in an Overloaded Profession and Health Care Environment** HealthEast Care System; Sheraton Midway Hotel, St. Paul, MN. CONTACT: Cheri Daniel, 1700 University Avenue West, St. Paul, MN 55104; 651/232-5225; cdaniel@healtheast.org.

Sept. 14-16 **Practical Surgical Pathology** Mayo Foundation; Leighton Auditorium, Siebens Education Building, Mayo Clinic, Rochester, MN. CONTACT: Registrars, Mayo School of Continuing Medical Education, Mayo Clinic, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Sept. 15 **Screening Flexible Sigmoidoscopy** St. Mary's/Duluth Clinic Health System; St. Mary's Medical Center, Duluth, MN. CONTACT: Diane Torvick, St. Mary's/Duluth Clinic Health System, Education and Research, 400 East Third Street, Duluth, MN 55805; 218/786-3838.

Sept. 15 **Air Pollution and Human Health** American Thoracic Society in joint sponsorship with the American Lung Association of Minnesota and Izaak Walton League of America; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Sarah Welch, Izaak Walton League of America, 1619 Dayton Avenue, Suite 202, St. Paul, MN 55104; 651/649-1446.


*First Call Physicians, Inc.*
*A Locum Tenens Service*
*500 Eighth Ave. S.*
*Buffalo, MN 55313*

**Clinics/Hospital** | **Physicians**

*Locums Coverage*
=
*Revenue*

- Patients falling through the gaps?
- Physician burnout or illness?
- Shortage of physicians?

- Earn more with less time.
- No administrative headaches.
- Malpractice premium paid.

*Experience, Service, Honesty*
*Call (metro) 682-3852*
*(toll free) 888-682-3852*

*(You'll be glad you did!)*



Clear blue skies, fresh air, wide-open spaces and clean lakes await you.



We are seeking BC/BE physicians in the following specialties:

**Adult Psychiatry**
**Anesthesiology**
**Cardiology & Electrophysiology**
**Child/Adolescent Psychiatry**
**Dermatology**
**EatingDisorders Clinician (PhD, PsyD or Masters prepared)**
**Family Practice** (Fargo, ND; E. Grand Forks, MN; Jamestown, ND)
**General Psychology**
**General Surgery** (Valley City, ND)
**Hematology/Oncology**
**Internal Medicine** (Hospitalist)
**Interventional Radiology**
**Neonatology**
**Nephrology**
**Neurology**
**Neurosurgery**
**Obstetrics/Gynecology** (Detroit Lakes, MN)
**Optometry** (Mayville, ND)
**Orthopaedics** (Fargo & Jamestown, ND)
**Otolaryngology**
**Pediatrics**
**Radiation/Oncology**
**Reproductive Endocrinology**
**Rheumatology**

MeritCare Medical Group is seeking talented, energetic physicians to join thriving, diverse practices.

MeritCare Health System is the premiere health system between Minneapolis and Seattle. MeritCare Medical Group is a 350-physician, multi-specialty group with a strong primary care base and MeritCare Hospital is a 380-bed tertiary/trauma facility. Fargo-Moorhead, recently named an "All American City, is a tri-college community of 160,000 with excellent public and parochial schools and a park department that provides year round activities for all age groups.

**Contact Jill Gilleshammer, Human Resources, 737 Broadway, Fargo, ND 58123 or call 1-800-437-4010, ext. 2338 or fax vitae to 701-234-2316. Visit our web site at www.meritcare.com**
Not a J1 waiver opportunity. This is not an HPSA site.

**MeritCare Medical Group**

EOE/AA Employer

Sept. 15-16 **Advanced Life Support in Obstetrics** Hennepin County Medical Center; HCMC-Pillsbury Auditorium, Minneapolis, MN. CONTACT: Ann Samways, HCMC, 701 Park Avenue, M/C 861-B, Minneapolis, MN 55415; 612/347-2078.

Sept. 21-22 **10th Annual Practical Pediatrics for the Primary Care Physician—Focus Areas: Genetics, Infectious Disease, Nephrology, and Neurology** Children's Hospitals and Clinics; Children's/United Heart and Lung Conference Center, St. Paul, MN. CONTACT: Betsy Julius, Medical Education, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/813-5884.

Sept. 22-23 **Mayo Clinic Update in Hepatology and Liver Transplantation** Mayo Foundation; Saint Paul Hotel, St. Paul, MN. CONTACT: Registrars, Mayo School of Continuing Medical Education, Mayo Clinic, 200 First Street SW, Rochester, MN 55905; 800/323-2688 or cme@mayo.edu.

Sept. 24-26 **Mechanical Ventilation: Principles and Applications** University of Minnesota; Hyatt Regency Minneapolis, MN. CONTACT: Registrars, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636; cmereg@tc.umn.edu.

Sept. 28-29 **Obstetrics and Gynecology Update** Institute for Research and Education; Naegele Auditorium, 7th Floor, Park Nicollet Clinic, 3800 Park Nicollet Boulevard, St. Louis Park, MN. CONTACT: Mary White, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 952/993-3531; whitemj@hsmnet.com.

Sept. 28-29 **Strategies in Primary Care** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Marilyn Horstman, HealthPartners, Continuing Medical Education, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.

Sept. 29 **Contemporary Issues in Dialysis** Hennepin County Medical Center; Sheraton Midway Hotel, St. Paul, MN. CONTACT: Vicki Bowler, 701 Park Avenue M/C 860D-5, Minneapolis, MN 55415; 612/347-4456.

## OCTOBER 2000

Oct. 2-3 **Annual Psychiatry Review: Mood Disorders** University of Minnesota; Radisson Plaza Hotel Minneapolis, MN. CONTACT: Registrars, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636; cmereg@tc.umn.edu.

Oct. 2-6 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota: International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.


NORTHWESTERN WISCONSIN / NORTHEASTERN MINNESOTA



**Midwest Living**

***The ultimate mix of career and recreation.***

Select from practice opportunities in northwestern Wisconsin or northeastern Minnesota. Small towns or larger cities, we offer the best of midwest living with 25 locations. Clean air, clean water and an environment that brings you closer to all the things you value most. Enjoy a unique quality mix of career, four seasons of fun and outstanding growth potential with the region's most comprehensive health care system.

We seek **BE/BC physicians** in the following specialties:

- Dermatology
- Emergency Medicine
- Family Practice
- Gastroenterology
- Hematology/Oncology
- Infectious Disease
- Internal Medicine
- Internal Medicine - Intensivist
- Internal Medicine - Pediatrics
- Neonatology
- Neurology
- OB/GYN
- Orthopaedic Surgeon - General & Trauma
- Orthopaedic Hand Surgeon
- Pediatrics
- Perinatology
- Physiatry - Pediatric
- Psychiatry
- Radiology - General Diagnostic, Musculoskeletal, Neuroradiology, Interventional
- Trauma Surgery
- Urology

SMDC
St. Mary's/Duluth Clinic Health System

Call or Fax C.V. in confidence to:
Physician and Provider Recruitment
SMDC - St. Mary's/Duluth Clinic Health System
400 E. 3rd St., Dept. 504, Duluth MN 55805
1-800-342-1388 or 218-786-8364 Fax: 218-722-9952
e-mail: provider@smdc.org
Websites: www.smdc.org or www.duluth.com *EOE A/A*



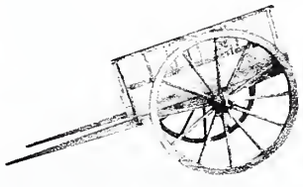
BC/BE FP's

GO

WEST...

CLAIM YOUR FUTURE...

- Independent Practice
- Physician Owned Clinic
- Great Compensation
- Great Benefits



Montevideo CLINIC, P.A.

EXPLORE THE POSSIBILITIES.

www.MontevideoMedical.com

Oct. 3-4 **Diabetes Conference** St. Mary's/Duluth Clinic Health System; Duluth Entertainment Convention Center, Duluth, MN. CONTACT: Catherine Koski, SMDC, Education and Research, 400 East Third Street, Duluth, MN 55805; 218/786-3854.

Oct. 5-6 **Annual Forensic Science Seminar** Hennepin County Medical Center; HCMC-Pillsbury Auditorium, Minneapolis, MN. CONTACT: Gail Kraemer, 530 Chicago Avenue, M/C L870, Minneapolis, MN 55415; 612/347-7705.

Oct. 6 **Electrocardiography for Primary Care Physicians** Hennepin County Medical Center; Earle Brown Heritage Center, Brooklyn Center, MN. CONTACT: Ann Samways, 701 Park Avenue M/C 861-B, Minneapolis, MN 55415; 612/347-2078.

Oct. 6-7 **Third Annual Twin Cities Marathon Sports Medicine Conference** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55415; 612/626-7600 or 800/776-8636; cmereg@tc.umn.edu.

Oct. 7-8 **Clinical Autonomic Quantitation Workshop** Mayo Foundation; Mayo Clinic, Rochester, MN. CONTACT: Registrars, Mayo School of Continuing Medical Education, Mayo Clinic, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Oct. 12-15 **Eighth Annual Women Physicians' Retreat** North Memorial Health Care; Madden's Resort, Brainerd, MN. CONTACT: Barbara Greene, North Continuing Education, 3500 France Avenue North, Suite 102, Robbinsdale, MN 55422-2806; 763/520-5942; barbara.greene@northmemorial.com.

Oct. 13 **Managing Challenging Situations in Brain Injury Care** HealthEast Care System; Sheraton Midway Hotel, St. Paul, MN. CONTACT: Cheri Daniel, 1700 University Avenue West, St. Paul, MN 55104; 651/232-5225; cdaniel@healtheast.org.

Oct. 13 **Dermatology Update** Institute for Research and Education; Naegele Auditorium, St. Louis Park, MN. CONTACT: Mary White, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 952/993-3531, e-mail: whitemj@hsmnet.com.

Oct. 20 **Perspectives on End-of-Life-Care** HealthEast Care System; HealthEast Woodwinds Health Campus, Woodbury, MN. CONTACT: Christine Keane, HealthEast St. John's Hospital, Medical Staff, 1517 Beam Avenue, Maplewood, MN 55109; 651/232-7180; ckeane@health east.org.

Oct. 20 **Caring for Torture Survivors: Building Networks of Support** Center for Victims of Torture; Earle Brown Heritage Center, Brooklyn Center, MN. CONTACT: Health Partners Institute for Medical Education, Registrar, Continuing Professional Development, P.O. Box 1309, Minneapolis, MN 55440-1309; 651/221-3992; after 9/1/00: 952/883-6225; www.cvt.org.

Oct. 27-28 **Thyroplasty: Theory and Practice** Minnesota Medical Association with Mayo Clinic Department of Otorhinolaryngology; Mayo Clinic, Rochester, MN. CONTACT: Barbara McLeod, Matrix Meetings, Inc., P.O. Box 1026, Rochester, MN 55905-1026; 507/288-5620.

Oct. 27-28 **Orthopedic Update** Institute for Research and Education; Radisson Hotel and Conference Center, Plymouth, MN. CONTACT: Mary White, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 952/993-3531; whitemj@hsmnet.com.

Oct. 28 **Breast Cancer: A Survivor's Journey** HealthPartners Institute for Medical Education; Continuing Professional Development; Four Points Sheraton Hotel, Minneapolis, MN. CONTACT: Marilyn Horstman, Continuing Education Department, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992; Marilyn.J.Horstman@HealthPartners.com.

## NOVEMBER 2000

Nov. 2 **Geriatric Care for the Primary Care Physician** Mayo Foundation; Leighton Auditorium, Siebens Education Building, Mayo Foundation, Rochester, MN. CONTACT: Registrars, Mayo School of Continuing Medical Education, Mayo Clinic, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Nov. 2-4 **Annual Orthopaedic and Trauma Seminar** Hennepin County Medical Center; Minneapolis Convention Center, Minneapolis, MN. CONTACT: Claudia Miller, 701 Park Avenue, M/C 862-B, Minneapolis, MN 55905; 612/347-4220.

Nov. 3 **A Global Affair: Caring for Immigrants and Refugees** Hennepin County Medical Center; HCMC-Pillsbury Auditorium, Minneapolis, MN. CONTACT: Robin Hoppenrath, 701 Park Avenue, M/C 861-B, Minneapolis, MN 55422; 612/337-7128.

Nov. 3 **Osteoporosis—Preventing the First and Subsequent Fractures—New Medical and Surgical Treatment Strategies for High Risk Patients** HealthEast Care System; St. Paul Science Center, St. Paul, MN. CONTACT: Cheri Daniel, 1700 University Avenue West, St. Paul, MN 55104; 651/232-5225; cdaniel@healtheast.org.

Nov. 3 **Spiritual Care Research: Applications to Practice** Mayo Continuing Nursing Education; Mayo Clinic, Rochester, MN. CONTACT: Mayo Continuing Nursing Education, Eisenberg S-41, 200 First Street SW, Rochester, MN 55905; 800/545-0357.

Nov. 3 **Women's Health: New Information for a New Century** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Sharon Kopp, HealthPartners-IME, 640 Jackson Street, St. Paul, MN 55101; 651/291-5536.

## Physician Employment Opportunities Available at WINONA CLINIC, LTD.

**General Internal Medicine**
** concentrated area of study in Cardiology or Gastroenterology is a plus, but NOT required*
(position available in 2001)

**Orthopedic Surgery**
(position currently available)

**Pediatrics**
(position available in 2001)

Our staff of 30+ medical providers is looking forward to welcoming you, as you begin your practice at this thriving, independent, physician-owned, multi-specialty clinic, located in a family-oriented community situated along the Mississippi River in the beautiful bluff country of southeastern MN.

*For additional information, contact:*
**Human Resources Director**
**Winona Clinic, Ltd.**
**420 East Sarnia Street**
**Winona, MN 55887**
**Phone: 507-457-7686**
**Fax: 507-457-7672**

---

MULTICARE ASSOCIATES OF THE TWIN CITIES

Multicare Associates of the Twin Cities, a multispecialty/multi-location clinic, located in the northern suburbs of Minneapolis/St. Paul, has available positions for BC/BE physicians in the following departments:

## Family Practice
## Internal Medicine
## OB/GYN

Excellent salary/benefits package includes paid insurance, flexible benefits plan, 401K, profit sharing, continuing medical education. Shareholder status potential after one year.

Contact Jeannine Schlottman
Administrator
7675 Madison St. NE
Fridley, MN 55432
763/785-3338
www.multicare-assoc.com

---

## CentraCare Clinic *is a progressive and growing 122-physician multi-specialty clinic with nine Central Minnesota sites. Our clinics offer a comprehensive income and benefits package and are conveniently located between the Twin Cities and prime Minnesota lakes area. Central Minnesota offers an outstanding lifestyle with quality schools and abundant recreational activities. CentraCare Clinic is currently recruiting for the following locations:*

**CENTRACARE Clinic**
Women & Children's Center

***Join** an exceptional 23-physician clinic specializing in pediatrics and obstetrics/gynecology which currently has openings in the following specialties:*

Allergy

Reproductive Endocrinologist

**CENTRACARE Clinic**
Heartland

***Join** an experienced 6-physician clinic which currently has an opening in:*

Family Practice Physician who practices Obstetrics

**CENTRACARE Clinic**
Melrose

***Join** 6 family practice physicians who practice obstetrics in a rural clinic setting:*

Family Practice Physician who practices Obstetrics

**CENTRACARE Clinic**
River Campus

***Join** an exceptional 65-physician specialty clinic which currently has openings in the following specialties:*

Allergy
Internal Medicine
Dermatology
Gastroenterology
Pediatric Critical Care
Infectious Disease
Rheumatology
Cardiology
Hospitalist

*For more information, please contact:*

*Karla Donlin*
*donlink@centracare.com*
*Kristine Cunningham*
*cunninghamk@centracare.com*
*Physician Recruiters*

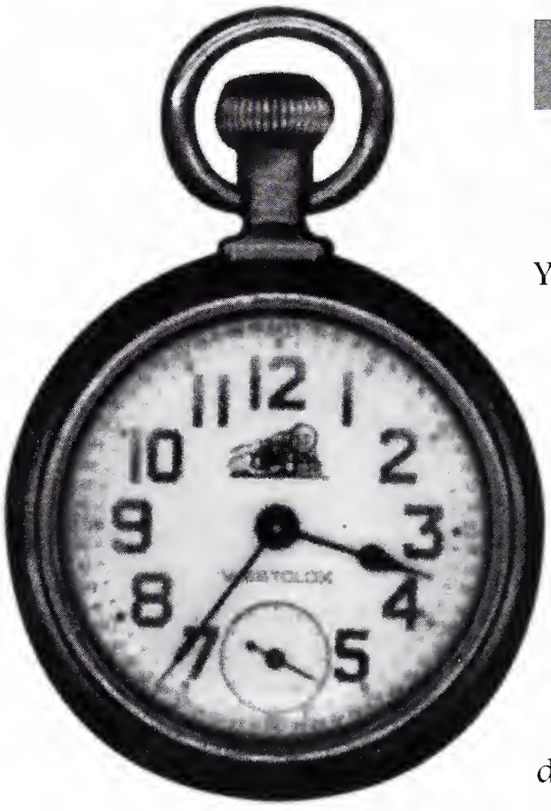
*1406 Sixth Avenue North*
*St. Cloud, MN 56303*

***1-800-835-6652***
*www.centracare.com*

**CENTRACARE Clinic**

# You've been elected President of your medical specialty society.

## You've got the ideas. You've got the ambition. But, do you have the time?



# MSBC does.

Your colleagues have honored you by electing you to serve as an officer of your society. They respect your professional and leadership skills. You've got the ideas and ambition it takes to make your society an integral part of your profession.

However, the thought of you and your office staff taking time away from patients to manage the day-to-day activities of your association somehow takes away the thrill in what should be a very exciting time for you.

**MSBC offers a wide range of affordable, efficient services designed specifically to meet the administrative needs of medical societies, large or small.**

Management Services By Choice (MSBC), a program of the Minnesota Medical Association, can help. Our professional staff will work directly with you to expand, improve, or develop new programs to best serve your membership. Call 612/378–1875 or toll free at 800/342–5662 for more information or visit our website at www.mnmed.org/MSBC.

MSBC
MANAGEMENT SERVICES BY CHOICE
A PROGRAM SPONSORED BY THE MMA

# *Physician Opportunities and Miscellaneous Listings*

***Classified rates are $2.50 a word (300-word maximum). Minimum monthly charge is $50; with box number $5 additional. Ads will not be accepted by phone.***

- Placement of ads must be made six weeks before the date of publication, e.g., September 15 for November ad. Please send ad requests to *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; or by fax, 612/378-3875; or e-mail, mm@mnmed.org.
- The publisher reserves the right to decline or withdraw advertisements. The publisher is not responsible for clerical or typographical errors and is not permitted to divulge the identity of advertisers who have replies sent to box numbers.
- Cancellation of ads must be made by the first of the month preceding month of issue.

---

**Quello Clinic, Ltd.:** Well-established, south suburban, physician-owned group seeking part/full-time OB/Gyn and family practice physicians to work in our regular day clinic. We are also seeking physicians to work at our urgent care sites. Contact medical director at 952/985-8931, or write Quello Clinic, Ltd., 7801 East Bush Lake Road, Suite 300, Bloomington, MN 55439. (6/00-R)

---

**Fairview Health Services:** Practice opportunities in urban, suburban, and semi-rural locations. Moonlighting and part-time urgent care opportunities also available. Please contact Fairview Physician Recruitment and Retention at 612/672-2288, 800/842-6469, fax: 612/672-2986, e-mail: recruit1@fairview.org or visit our Web site at www.fairview.org/recruitment. (6/00-R)

---

**Olmsted Medical Center** is seeking BC/BE physicians in family medicine, emergency medicine, and dermatology to join our 75-physician multispecialty group. Great opportunity for well-trained physicians to join a family-friendly group in a dynamic, progressive practice. In addition to its main office and hospital in Rochester, the Olmsted Medical Center system includes 11 branch office locations in southeastern Minnesota. Excellent salary and benefits, including health benefits, malpractice, spending accounts, educational funds, profit sharing, 401(k)/403(b), and relocation assistance. Send CV to Lois Till-Tarara, Olmsted Medical Center, 1650 Fourth Street SE, Rochester, MN 55904; 507/287-2430. Fax: 507/285-8973. (*3/99-R)

---

**MDsearch** assists medical groups and hospitals in their recruiting efforts. For confidential information on opportunities in the Upper Midwest, send CV and/or call collect Mary Jo Cordes, MDsearch, P.O. Box 21507, St. Paul, MN 55121; 651/454-7291. Fax: 651/454-7277. (2/93-R)

---

**BC/BE Internists—St. Paul:** The Parker Hughes Cancer Center is expanding and is in need of additional General Internists to join its medical staff. Parker Hughes Cancer Center uses a multidisciplinary approach to treat all forms of cancer, employing a cutting-edge technology that increases the effectiveness of standard and experimental drugs while minimizing side effects. The center provides state-of-the-art facilities, equipment, and treatments. For more information contact Patrick Moylan, Senior Manager of Operations, at 651/697-9228 or send your curriculum vitae to: Parker Hughes Cancer Center, Attn: Mr. Moylan, P.O. Box 8178, St. Paul, MN 55108, FAX 651/697-1057. Visit our Website: www.parkerhughes.org. Parker Hughes Cancer Center: We Create Hope. (1-9/00)

---

**Falls Medical Search Seeks Physicians** for practice opportunities locally and nationally. To explore new practice options confidentially, send your CV or call Pat Falls, Falls Medical Search, 34 Forest Dale Road, Minneapolis, MN 55410; 612/922-0207 or 800/383-8916. (*5/92-R)

---

**The Minnesota Recruiter** works with Minnesota practices to staff their physician opportunities, and with physicians seeking new opportunities. Through our nationwide affiliate offices, we can provide attractive opportunities in nearly all parts of the country. Access these opportunities on-line at www.mnrecruiter.com or contact us confidentially at 800/967-2711, or by fax at 320/587-7252. (6-1/01)

---

**Weber Law Office:** Focusing on the professional and personal legal needs of the health professional. Former attorney for the Board of Medical Practice. Over six years with the Minnesota Attorney General's Office. Committed to the best legal outcome possible through diligence and resourcefulness. 612/296-8080; www.weber-law.com. (6-12/00)

---

**Full or part-time BC/BE radiologist** to join 36-physician multispecialty group. Excellent salary/benefit package. No J-1 Visa. Contact James Matter, M.D. or Scott Swenson, M.D., 218/736-8000, 615 South Mill Street, Fergus Falls, MN 56537. EEO/AA (3-11/00)

---

**Northern Minnesota Physician Practice:** The Littlefork Medical Center Rural Health Clinic is seeking a physician to assume an established practice. The center includes a 60-bed long-term-care facility and 10-bed CD unit. Located in northern Minnesota, Littlefork offers a friendly, small-community atmosphere with an excellent education system and has access to prime outdoor activities. If interested contact: Calvin Olson, Administrator, Littlefork Medical Center, 912 Main Street, Littlefork, MN 56653, 218/278-6634 ext. 107. (1-9/00)

---

**Medical Director:** For rehabilitation/physical therapy clinic in St. Paul. Opportunity to grow with practice. No on call or weekends. Call Midway Injury Management. 651/644-0210. (1-9/00)

Caring For Our Community
Affinity

*Affinity Medical Group is an integrated health care organization providing quality care and services throughout our three hospitals and 17 clinic locations in East Central Wisconsin. Currently we are seeking BC/BE Physicians in the following specialties:*

- **Anesthesiology**
- **Dermatology**
- **Internal Medicine**
- **Oncology**
- **Orthopaedics**
- **Psychiatry**
- **Pediatrics**
- **Family Practice**
- **Hospitalist**
- **Radiology**
- **Surgery (with vascular training)**

The Fox Cities communities which include Appleton, Oshkosh and Neenah, offer a host of cultural opportunities and a chance to practice medicine in smaller settings that have everything big city medicine offers. Once here, we're sure you'll agree that these practice locations are some of the most attractive places to live in the Midwest.

For more information on Affinity Medical Group, please contact or send your CV with 3 letters of reference, to: Cookie Fielkow, Physician Recruitment, **800-722-9989,** e-mail: cfielkow@affinityhealth.org

Affinity Medical Group
A MEMBER OF AFFINITY HEALTH SYSTEM

**P.O. Box 8005 • Menasha, WI • 54952-8005**

SEPTEMBER 2000 INDEX TO ADVERTISERS

Acute Care, Inc. ..... 63
Advanced Imaging/MRI Financial Services, Inc. ..... 3
Affiliated Community Medical Centers ..... 53
Affinity Medical Group ..... 72
Allina ..... 60, 72
Aspen Medical Group ..... 31
Banner Health System ..... 60
Brainerd Medical Center ..... 26, 61
CentraCare Clinic ..... 69
Custom RX Compounding ..... 30
Emergency Practice Associates ..... 17
First Call Physicians, Inc. ..... 66
HealthEast - Bethesda Rehabilitation Hospital ..... Cover 2
HealthEast - St. John's Hospital ..... 56
HealthPartners ..... 9, 61
Hennepin County Medical Center ..... 32
Hennepin Faculty Associates ..... 53
Leonard, Street and Deinard ..... 9
Management Services by Choice ..... 70
Mankato Clinic ..... 63
Medical Protective Co. ..... 5, 27
MeritCare ..... 66
MICOA Mutual Insurance Company of America ..... Cover 4
Midwest Medical Insurance Company ..... 23, 41
MMBR ..... 45
Montevideo Clinic ..... 67
Multicare Associates of the Twin Cities ..... 56, 69
North Memorial Healthcare ..... 61
Owatonna Clinic-Mayo Health Systems ..... 31
Regions Hospital ..... Cover 3
Ridgeview Medical Center ..... 31
St. Mary's/Duluth Clinic Health System ..... 67
St. Vincent Hospital ..... 44
University of Minnesota Department of Medicine ..... 56
Vencor ..... 10
Whitesell Medical Locums, Ltd. ..... 56
Winona Clinic, Ltd. ..... 69

**Continuing Medical Education**
**sponsored by Allina Health System**

## September 2000

**1** **Advanced Cardiac Life Support (ACLS)**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Abbott Northwestern Hospital, Minneapolis

**9** **Retina Update 2000**
PRESENTED BY: Phillips Eye Institute
LOCATION: Hotel Sofitel, Minneapolis

**14** **Electron Beam Computed Tomography Conference**
PRESENTED BY: Minneapolis Heart Institute
LOCATION: Abbott Northwestern Hospital, Minneapolis

**15** **Obsessive-Compulsive Disorders (OCD) in Adolescents**
PRESENTED BY: Allina Hospitals & Clinics Behavioral Health Aervices
LOCATION: United Hospital, St. Paul

**18 & 19** **Advanced Trauma Life Support (ATLS)**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: United Hospital Conference Center, St. Paul

## October 2000

**6** **The Prevention, Diagnosis and Treatment of Breast Disorders for Primary Care**
PRESENTED BY: The Breast Program of Mercy & Unity Hospitals
LOCATION: Earle Brown Heritage Center, Brooklyn Center

**13** **Minnesota and the Aging Driver: Your Options as a Professional**
PRESENTED BY: Allina Hospitals & Clinics, AAA, GRECC/VA Hospital, State of MN Dept. of Public Safety, and Sister Kenny Rehabilitation Services
LOCATION: Earle Brown Heritage Center, Brooklyn Center

**26 & 27** **2000 Front Line Neurology Symposium**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: DoubleTree Hotel, by Mall of America, Bloomington

**28** **7th Annual Orthopedics & Sports Medicine Symposium**
PRESENTED BY: Mercy and Unity Hospitals
LOCATION: Earle Brown Heritage Center, Brooklyn Center

## November 2000

**3** **Patient Educator Conference**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Abbott Northwestern Hospital, Minneapolis

## February 2001

**10** **Twin City Eye Meeting**
PRESENTED BY: University of Minnesota Department of Ophthalmology and Phillips Eye Institute
LOCATION: DoubleTree Park Place, St. Louis Park, MN

**For more information contact:**
**Allina Education and Research Administration at (612) 775-9626**

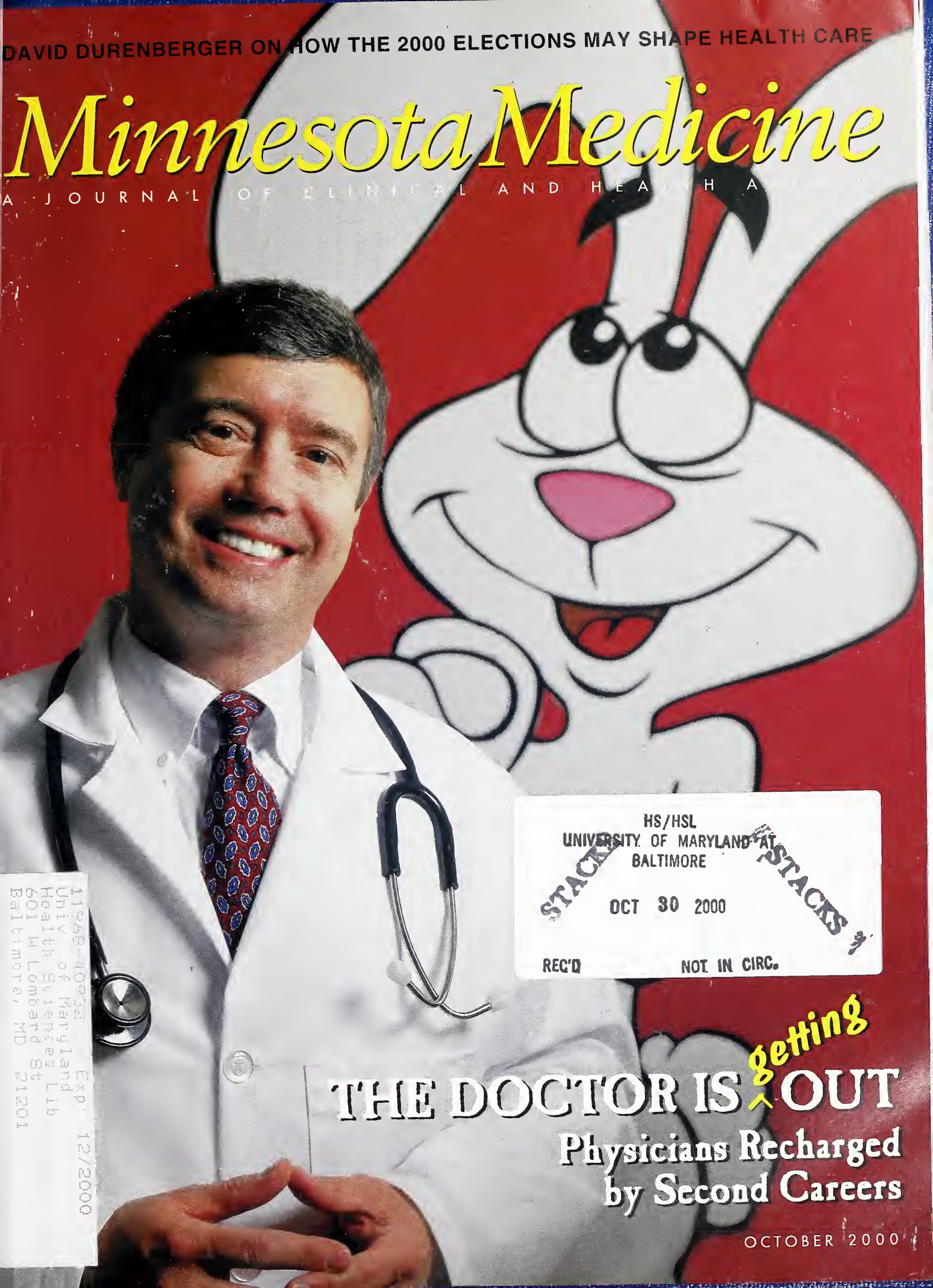
ALLINA
HEALTH SYSTEM

®Allina Health System

DAVID DURENBERGER ON HOW THE 2000 ELECTIONS MAY SHAPE HEALTH CARE

# Minnesota Medicine

A JOURNAL OF CLINICAL AND HEALTH CARE



HS/HSL
UNIVERSITY OF MARYLAND AT BALTIMORE
STACKS
OCT 30 2000
STACKS
REC'D
NOT IN CIRC.

1048-4078-32 Exp. 12/2000
Univ. of Maryland
Health Sciences Lib.
601 W Lombard St
Baltimore, MD 21201

## THE DOCTOR IS getting OUT

### Physicians Recharged by Second Careers

OCTOBER 2000

5 hours of sleep

18 hour shift

20 minutes to eat

Plenty of time to get a liability insurance quote.

## www.micoadirect.com

Now you can find a professional liability quote when you can find the time. With MICOA Direct, you can get a quote online quickly, easily and most importantly, when it's convenient for you. And it's a quote backed by a company that's been in the business for 25 years, has an A- (Excellent) rating from A.M. Best, and was actually founded by physicians for physicians. Simply log on to MICOA Direct or call 1-888-738-0504. All inquiries are protected and quotes are available within 24 hours of request Monday through Friday. Finally, professional liability quotes are available when you are.

1-888-738-0504

MICOA
Mutual Insurance Corporation Of America
»»Direct›

The Customer Solutions People

# Minnesota Medicine

Published monthly by the Minnesota Medical Association



COVER

*Tim Crimmins, M.D., left an intense career as an ER physician to take a lead role in health, safety, and environment at General Mills (that explains the Trix™ cereal rabbit). See page 10 for more stories about physicians who have chosen nontraditional paths. Photograph by John Noltner.*

DEPARTMENTS

2 ..... Editor's Note

33 ..... MMA News & Views

66 ..... CME in Minnesota

73 ..... Classified Ads

74 ..... Index to Advertisers

FACE TO FACE

**6** **Systems Analyst** ..... Dan Emerson
*From an executive vantage, K. James Ehlen, M.D., works to diagnose and cure an ailing health care system.*

FEATURE STORIES

**10** **The Doctor Is (Getting) Out** ..... Howard Bell
*Physicians are leaving patient care for other jobs and finding life less stressful. Why did they leave? What are they doing now and what do they miss?*

**18** **Physicians Who Write** ..... Elaine Cunningham
Minnesota Medicine *uncovers the talents of seven physicians who are making literary inroads in such genres as creative nonfiction, plays and poetry, and fiction and fantasy.*

**30** **A Novel Specialty** ..... Sarah A. Klein
*For some physicians, writing fiction is merely a hobby. For others, it's a second career.*

SPECIAL REPORTS

**46** **Election 2000: What Your Vote May Mean for Health Care Policy** ..... David Durenberger
*The two major political parties know that health care issues affect election outcomes and that elections affect health care.*

**50** **MEDPAC Endorsements for the 2000 Elections** ..... MEDPAC Board of Directors

CLINICAL & HEALTH AFFAIRS

**53** **Antibiotic Bacterial Resistance in Ambulatory Patients** ... Barbara P. Yawn, M.D., M.Sc., Peter Wollan, Ph.D. Frank Cockerill, M.D., and Eva Lydick, Ph.D.

MEDICINE LAW & POLICY

**60** **Medicare Managed Care Reimbursement: Unjust Yet Constitutional** ..... Margie R. Bodas, J.D.
*Minnesota will take its case against Medicare+Choice funding formulas to appeals court and Congress.*

BOOK REVIEW

**64** **The On-Call Muse** ..... A review by Charles R. Meyer, M.D.
*"Doctors Afield" explores how some physicians incorporate creativity into their often stressful daily lives.*

JUST WRITE

**76** **Hurry Up and Wait** ..... James Kaufmann, Ph.D.
*In writing, that can be a good thing.*

# A 'Swirling Saturation in Writing'

"I like to think of your time here as a kind of vortex, a swirling saturation in writing." The bearded professor stared at the class over his bright-blue half-glasses. Gregarious, articulate, and slightly profane, poet Liam Rector was not your typical professor. But he was not talking to your typical entering class. Seated in wooden desks on a muggy Vermont summer afternoon were 27 matriculates to Bennington College's low-residency (students spend a total of 40 days on campus over two years) creative writing program. The group included a Congregational pastor, a middle-aged housewife, an organizational psychology professor, an ex-'60s radical, and me. What was I doing there? This month's *Minnesota Medicine* features stories about doctors exploring beyond their medical practice. Here's my story.



*"I will pull myself away from MIs and HMOs and immerse myself in a vortex of writing and writers."*

What was I doing there, indeed! A busy practice and a full extracurricular schedule said I shouldn't be there. An approaching "empty nest" at home said my wife should have been there instead of me. (She did gingerly ask me whether this was the real thing—a midlife crisis. I assured her that even if it was, it was cheaper and safer than a Corvette.)

Applying to Bennington's MFA program had been an experience in itself. The strange feeling I had when requesting my undergraduate and medical school transcripts was eclipsed by the stranger experience of requesting letters of recommendation attesting to my writing skills and my ability to work independently. Stranger still was writing the application essay at the same time my youngest son was writing his to apply for college. But I persevered.

Not long after arriving at Bennington's quaint campus with white frame buildings nestled in the Green Mountains, I discovered that I had to get adjusted to certain aspects of campus life: the first was dormitory beds; the second, dormitory bathrooms; the third, sitting in class.

The next 10 days were indeed a vortex of talks, by biographer Nancy Mitford, essayist Nicholas Delbanco, and Latin American literature scholar Ilan Stavans. I listened as fellow students who were completing their two-year MFA degrees presented their creative works of poetry, fiction, and nonfiction. I listened as other fellow students gave impromptu short readings, many of which were more entertaining than the formal presentations. And I attended the workshops, dreaded by some, where we critiqued each other's work.

Heading home, I got on the plane in Albany, digesting the words, the people, and the ideas of the week. I started obsessively planning my schedule for the next month so I could finish my first paper in time, adding one big monthly deadline to lots of daily deadlines. I did make the first deadline and received two pages of comments, criticism, and some praise from my adviser, Susan Cheever. Whether another year-and-a-half of this discipline will make me a better writer is still unclear.

So why *was* I there in that muggy classroom? My initial goal was to expand my writing, branching out from Editor's Notes and book reviews to longer creative nonfiction pieces critiqued by seasoned writers. After my first on-campus session, I now realize that the experience will be broader than that. Three more times over the next two years I will pull myself away from MIs and HMOs and immerse myself for 10 days in a vortex of writing and writers. I will think about voice and plot rather than nausea and vomiting. I will mingle with radicals and reverends, hear their stories, and view their past. And I hope I will see my patients, my practice, and my life with clearer, more perceptive eyes when I reenter the vortex of medicine.

*–Charles R. Meyer, M.D., Editor-in-Chief*

# SELECTION & SAVINGS

## THE POWER OF &

THE FUSION OF DESIGN & TECHNOLOGY




SEVILLE



DEVILLE

**THERE ARE MANY REASONS WHY WE ARE NUMBER ONE IN SALES FOR THE NINTH CONSECUTIVE YEAR.**

**TEST DRIVE A NEW CADILLAC TODAY!**



Wally McCarthy's Cadillac

ON HIGHWAY 36, JUST WEST OF ROSEDALE • www.mccarthyauto.com • 651.636.6060

---

# // NOW THERE'S A HUMMER DEALER IN MINNESOTA. IF YOU COME HERE FIRST, YOU CAN GO ANYWHERE YOU WANT TO.



**IN STOCK:**

1 NEW 1999 WAGON
1 NEW 2000 HARD TOP
3 NEW 2000 OPEN TOPS
10 NEW 2000 WAGONS
1 USED 1999 OPEN TOP
1 USED 1995 TWO MAN WITH UTILITY BOX

Wally McCarthy's HUMMER®

ON HIGHWAY 36, JUST WEST OF ROSEDALE • www.mccarthyauto.com • 651.636.6060

# Minnesota Medicine

Published monthly by the Minnesota Medical Association

*Owner and Publisher*
Minnesota Medical Association

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Managing Editor*
Meredith McNab

*Associate Editors*
Lisa Moshfeghi
Carmen Peota

*Publications Assistant*
Katie Ocel

*MMA News & Views Editor*
Lorrie Holmgren

*MMA News & Views Writer*
Cynthia Lehman

*Graphic Designers*
Barbara Gerbig
Katie Ocel

Send manuscripts, subscriptions, and other material for consideration to *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/378-1875. E-mail: mm@mnmed.org
The editors reserve the right to reject editorial, scientific, or advertising material submitted for publication in *Minnesota Medicine*. The views expressed in this journal do not necessarily represent those of the Minnesota Medical Association, its editors, or any of its constituents. Annual subscription–$40. Single copies–$3.50. Canadian–$70. Foreign–$70.

***To Advertise:*** Contact Michele Holzwarth, *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/623-2880 or 800/DIAL MMA (342-5662).



**Advisory Committee**

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Advisory Committee*
Charles R. Meyer, M.D.
Edmund C. Burke, M.D.
Richard C. Lussky, M.D.
Lynne Ogawa, M.D.
Paul S. Sanders, M.D.
Leif I. Solberg, M.D.
Barbara P. Yawn, M.D.
Meredith McNab, staff

*Editors Emeritus*
Edmund C. Burke, M.D.
1991-1993

Richard L. Reece, M.D.
1975-1990

Reuben Berman, M.D.
1971-1974

Carl O. Rice, M.D.
1961-1970



**Copyright & Post Office Entry**

*Minnesota Medicine* (ISSN 0026-556X) is published on the fifth of each month by the Minnesota Medical Association, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761, copyright 2000. Permission to reproduce editorial material in this magazine must be obtained from *Minnesota Medicine*. Periodicals postage paid at Minneapolis, Minnesota, and at additional mailing offices. POSTMASTER, send address changes to *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761. (USPS 3519000.)



MINNESOTA MEDICAL ASSOCIATION

**2000–2001 Officers**

*President*
Blanton Bessinger, M.D.

*President-Elect*
Peter C. Amadio, M.D.

*Chair, Board of Trustees*
Robert K. Meiches, M.D.

*Vice President*
David D. Luehr, M.D.

*Secretary*
David L. Estrin, M.D.

*Treasurer*
Michael B. Ainslie, M.D.

*Speaker of the House*
Gary D. Hanovich, M.D.

*Vice Speaker of the House*
Rebecca Jean Hafner, M.D.

*Past President*
John M. Van Etta, M.D.

*Chief Executive Officer*
Paul S. Sanders, M.D.

**MMA Senior Staff**

*Director of Communications*
Lorrie Holmgren

*Chief Financial Officer*
George C. Lohmer Jr.

*Director of State and Federal Legislation*
David Renner

*Director of Health Law*
Christina F. Rich, J.D.

*Director of Health Economics and Policy Analysis*
Janet Silversmith

*Director of Executive Office*
Karen A. Tourdot

**Alliance**

*President*
Diane Gayes

*President-Elect*
Pam Schmidt

**Board of Trustees**

*N.W. District*
Jerry P. Rogers, M.D.

*N.E. District*
Stephen L. Hadley, M.D.
Charles R. Helleloid, M.D.

*N. Central District*
James J. Dehen Jr., M.D.
George Schoephoerster, M.D.

*West Metro*
Lee Beecher, M.D.
Karen K. Dickson, M.D.
John W. Larsen, M.D.
Robert K. Meiches, M.D.
Henry T. Smith, M.D.

*East Metro*
Thomas Dunkel, M.D.
Lyle Swenson, M.D.

*S.W. District*
Terence P. Cahill, M.D.
Elton G. Wing, M.D.

*S.E. District*
Peter Amadio, M.D.
G. Richard Geier Jr., M.D.
Kimberly McKeon, M.D.

*Resident Member*
Melissa Merideth, M.D.

*Medical Student*
Sam Reck

**AMA**

*AMA Delegates*
Robert D. Christensen, M.D.
Frank J. Indihar, M.D.
Carolyn J. McKay, M.D.
Lyle Munneke, M.D.
Audrey M. Nelson, M.D., *Chair*
Thomas L. Peyla, M.D.
Andrew J.K. Smith, M.D.

*AMA Alternates*
Raymond G. Christensen, M.D.
Kenneth W. Crabb, M.D.
Anthony C. Jaspers, M.D.
Paul C. Matson, M.D.
Sally Trippel, M.D.
John M. Van Etta, M.D.
Benjamin H. Whitten, M.D.



**MMA Address**

Minnesota Medical Association
3433 Broadway Street NE, Suite 300
Minneapolis, MN 55413-1761

Phone: 612/378-1875 or 800 DIAL MMA (342-5662)

Fax: 612/378-3875

E-mail: mma@mnmed.org

Web site: www.mnmed.org

# HealthPartners

*Institute for Medical Education*

CONTINUING PROFESSIONAL DEVELOPMENT OFFERINGS

| | |
|---|---|
| Cardiology Today | Every Third Tuesday |
| Women's Health: New Information for a New Century | November 3, 2000 |
| Pulmonary and Critical Care Medicine | November 9 – 10, 2000 |
| Orthopedic Practicum for Primary Care | November 17 – 18, 2000 |
| 22nd Annual Cardiovascular Conference | December 7 – 8, 2000 |
| 13th Annual Wound/Burn Care Today | February 8 – 9, 2001 |
| Family Medicine Today | March 8 – 9, 2001 |
| OB/Gyn Update | April 5 – 6, 2001 |

FOR FURTHER INFORMATION CONTACT:
*Health Partners Institute for Medical Education*
*Continuing Professional Development*
*8100 34th Ave. S., P.O. Box 1309 • Minneapolis, MN 55440-1309*
*Phone 952-883-6225 • Fax 952-883-7272*
*Web site: IME.HealthPartners.com*





*St. Cloud, Minnesota*—St. Cloud Hospital/Mayo Family Practice Residency Program, a successful, community-based, unopposed, 4-4-4 Family Practice Residency program sponsored by Mayo Graduate School of Medicine seeks a full-time BC physician/faculty member to join its experienced faculty. As a member of this team, your responsibilities will include resident supervision and direct patient care, including inpatient and outpatient. We offer a highly competitive salary commensurate with training and experience and benefits including relocation allowance, four weeks of paid vacation, and two weeks CME. This program emphasizes doctor-patient relationships, rural practice preparation, procedural training, obstetrical care, evidence-based medicine and an adult learner model. St. Cloud is a growing, family-oriented college town of 110,000 conveniently located between Minneapolis/St. Paul and prime Minnesota lake areas. Please contact George Schoephoerster, M.D., at 800/575-2982, fax CV, 320/240-3165, or e-mail: schoephoersterg@centracare.com

**✠ St.Cloud Hospital / Mayo Family Practice Residency**



# Emergency Medicine Opportunities

**Emergency Practice Associates** provides quality emergency physician services. Our physicians work as independent contractors in a growth-oriented, physician-supported environment.

***full time opportunities***

| | |
|---|---|
| *GRAND RAPIDS, MN* | **Itasca Medical Center**<br>Medical Director and Staff Physician |
| *HIBBING, MN* | **University Medical Center–Mesabi**<br>Staff Physician |
| *LITTLE FALLS, MN* | **St. Gabriel's Hospital**<br>Medical Director and Staff Physician |
| *NEW ULM, MN* | **New Ulm Medical Center**<br>Medical Director and Staff Physician |

***part time opportunities***

| | |
|---|---|
| *AITKIN, MN* | **Riverwood Health Care Center** |
| *CROSBY, MN* | **Cuyuna Regional Medical Center** |
| *ST. PETER, MN* | **Community Hospital & Health Center** |

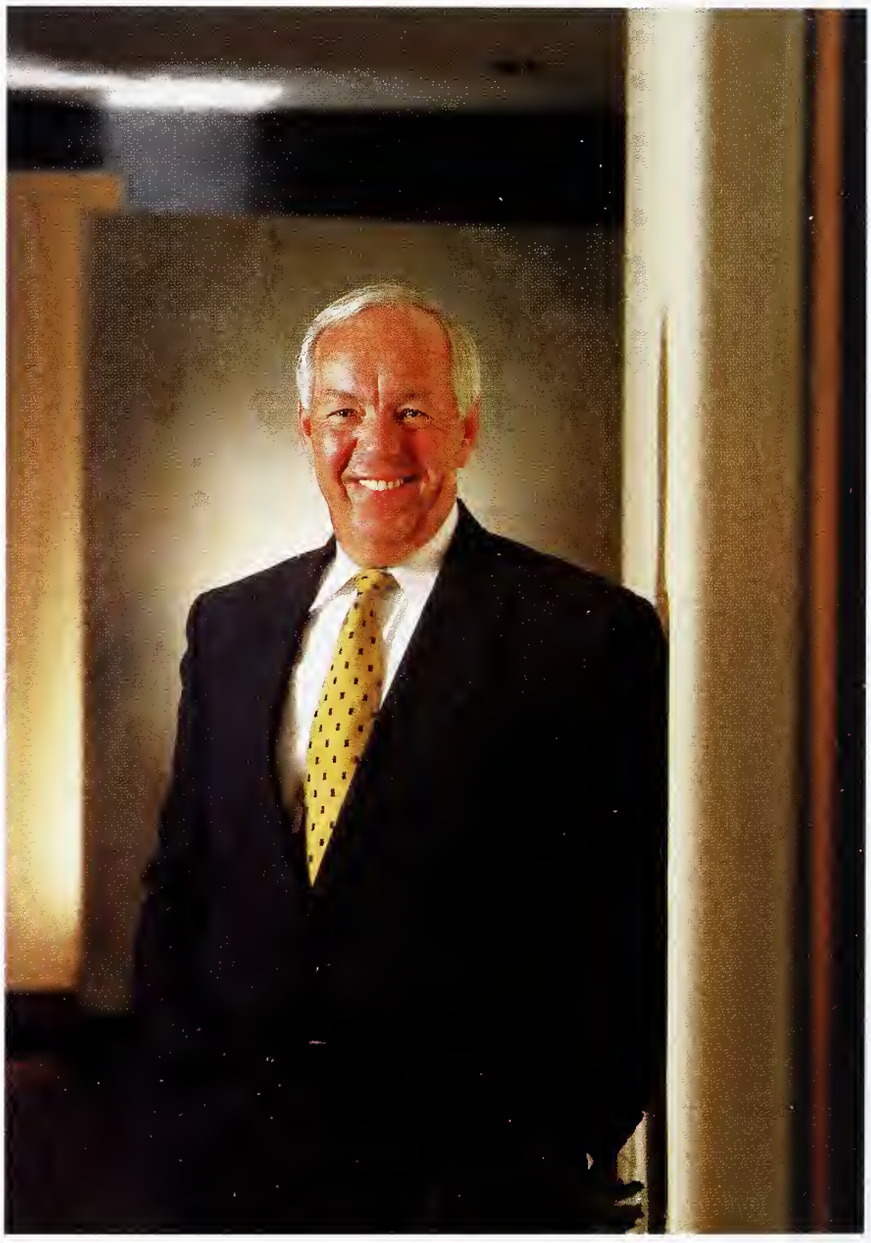
EMERGENCY PRACTICE ASSOCIATES
BOX 1260
WATERLOO, IA 50704
FAX: 319-236-3644

**Call the recruiting specialist today at 1-800-458-5003**
www.epamidwest.com

# SYSTEMS ANALYST

By Dan Emerson

Earlier this year, the Minneapolis law firm of Halleland Lewis Nilan Sipkins & Johnson announced a high-profile, and somewhat unusual, appointment. To head its health consulting group, the firm hired K. James Ehlen, M.D., former practicing endocrinologist, one-time leader of a health management "insurrection," and most recently, president of Minnesota's largest provider/insurer organization, Allina Health System. Ehlen resigned from Allina in 1999, after his colleague, Gordon Sprenger, was named CEO.



PHOTOGRAPH BY JOHN NOLTNER

*From an executive vantage, K. James Ehlen, M.D., works to diagnose and cure an ailing health care system.*

In his new position, Ehlen says he is focusing on three areas: helping health organizations improve the care they deliver; helping small to midsized medical device companies position new products and craft strategies; and helping hospitals "evaluate the capacity of their physicians to lead." Another role underpins each of those functions: helping health care organizations anticipate, influence, and adjust to change. Playing a leadership role in shaping change is nothing new for Ehlen, who at times during the past 15 years has found himself in the middle of the tug of war between physicians and managed care organizations.

Ehlen's gradual career change from practicing endocrinologist to managed care executive and consultant began in late 1986. Then chief of staff at St. Mary's Hospital in Minneapolis, he helped lead a doctors' revolt against Physicians Health Plan (PHP) accusing the state's largest HMO of serious mismanagement. The physician oversight committee accused PHP's then-chief executive, Richard Burke, of conflict of interest because of his dual role as head of PHP and United Health Care (UHC), a for-profit company that provided management services to PHP. After the filing of countersuits, mediation by the governor's office, and the ouster of half of PHP's board of directors, Ehlen was elected the new chair of the board. PHP was separated from UHC. In 1991, it merged with another health care company, SHARE, to form Medica, with Ehlen as chair and CEO.

Later, as president of Allina Health System, Ehlen became a focal point for criticism from fellow physicians who were chafing under the financial and practice restrictions of managed care. Today Ehlen still plays a major role in shaping the discussion and evolution of Minnesota's health care delivery systems.

Ehlen grew up in south Minneapolis and attended Roosevelt High School. His father was a Greyhound bus driver, and his mother worked two to three jobs at a time. Ehlen and his two brothers were the first members of his extended family to attend college. He financed his education by working summers on the assembly line at the Twin Cities Ford plant. The experience, he says, "taught me the value of a college education."

He hadn't considered medicine as a career until he was nearing the end of his undergraduate work as a psychology major at the University of Minnesota. A close family friend, a physician, talked him into applying for medical school. "He saw in my behavior the kind of things he thought would make a good doctor—a love of science, a desire to make things better. ... Even as a kid I was always trying to fix things. I took his advice, and I'm awfully glad I did."

After medical school at the University of Minnesota, residency training at the University of Utah, and a two-year stint as both an Army physician at Brooke Army Medical Center and medical professor at the University of Texas Medical Center in San Antonio, Ehlen returned to his home town to enter private practice in 1976.

Ehlen says he was drawn to endocrinology because it involves applying objective measurements, which lead to diagnoses and treatments that can produce rapid and pronounced improvement in a patient's condition. "People who are hyperthyroid can be made normal," he says, "diabetics can live a reasonably normal life. I was quite attracted to that kind of model."

That same desire to help patients drew him to health care administration, Ehlen says. "I was attracted for reasons I still think are valid. In managed care settings, you have defined populations available; a defined population might be all diabetics or Medicaid beneficiaries. If you operate effectively, you can actually improve what happens for a larger group of people than you can when you're practicing one patient at a time. That sums up the appeal of moving from practice to PHP. For me, it had everything to do with looking for better ways to provide care."

He says that focus on better care also helped him weather the tough times, when some physicians saw him as a traitor choosing the mercenary motives of managed care over medical altruism. "Things are difficult when people I care about don't understand what I'm trying to do. I've dealt with that by always focusing on how we can give better care to patients. I could go to sleep with a clear conscience at night because I knew unequivocally that [other] physicians care about the same thing."

Have the diagnostic and problem-solving skills he learned as a physician helped him as a health care executive? In the case of the rapidly evolving health care system, the diagnosis has been somewhat ambiguous and incomplete, Ehlen notes. It has posed perplexing challenges. "A number of moving parts have to work in harmony to satisfy each of the stakeholders," he says. "It's certainly been out of tune for the last decade or so. What has frustrated me is that we haven't had very good information to help us know what to do next. My excitement now comes from the fact that we have better information to point people in the right direction.

"It's a remarkable time in health care. We have managed to disenfranchise every stakeholder. Providers are uncertain about their role, managed care organizations are experiencing a high level of disrespect in the public eye and struggling with the job of managing costs, ... [and] some hospitals are in deep trouble with respect to their own finances, in part because of what government has done. And over the last few years, consumers' doubt and skepticism about how well the system works for them have grown significantly."

Ehlen wants to see providers and clinicians take a stronger role in guiding whatever systemic changes lie ahead. "The last 10 years of very powerful managed care guidance haven't left us in a very good situation. We can improve the system dramatically if we figure out how to install better care processes that are more effective and use the experience and knowledge of clinicians. And couple that with the remarkable information and technology tools now at hand."

Ehlen says that he accepted his current consulting position partly because he and Keith Halleland are "soul mates," sharing opinions about the kinds of changes needed in health care and how they might create new models for making some of those changes occur. "We think the same way about the future of health care," Ehlen says, "with the common attitude that the system needs a lot of change."

In his new job as health care consultant for the law firm, Ehlen says he is helping people recognize the forces that govern health care. "Certainly, a lot of the power is held by consumers and by doctors, health plans, and hospitals." He contends that the only way to align those stakeholders so that they are working in concert rather than in opposition is with "meaningful information" that all parties can understand and act upon. If a hospital wants to thrive, it should have good information about how to give good service to people and demonstrate better clinical outcomes in language that people can both understand and trust.

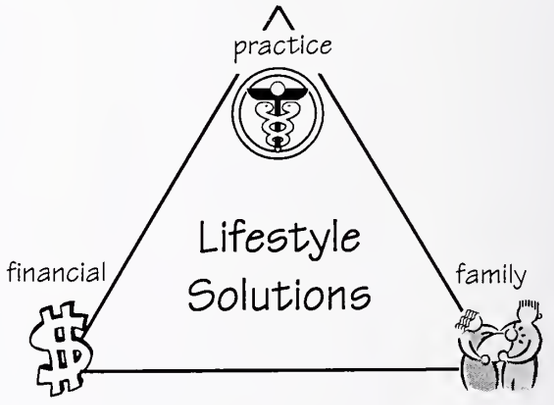
"We've really labored and struggled in the last decade with a lot of information people don't trust. When a health plan tells doctors that some clinical outcome is occurring in their practice, they don't like that. Rather than seeing that as something to help them, they see it as intrusive. Information is the linchpin to all this; we can't do this with good looks and charm because people don't trust one another."

Halleland, a veteran health law attorney who founded his law firm in 1996, says Ehlen is well-equipped to overcome such obstacles. "He has the highest energy level of any person I've ever worked with. His day-to-day persistence and focus are tremendous. And his experience as a successful physician gives him a broader insight into what patients want and need, which is often missing in the debate." MM

### *Dr. K. James Ehlen at a Glance*

| | |
|---|---|
| *Age:* | *56* |
| *Education:* | *B.A. in psychology 1966, University of Minnesota; M.D., 1970, University of Minnesota; internal medicine residency, University of Utah Medical Center; endocrinology residency, University of Minnesota* |
| *Family:* | *wife, Gail; sons Timothy, 33, ophthalmologist, Northwest Eye Clinic; Christoffer, 31, sporting goods store manager; Jeremy, 26, human resources employee, Wells Fargo; Ryan, 21, student at Normandale Community College; daughter, Anne, 18, student at Skidmore College* |


P R O V I D I N G

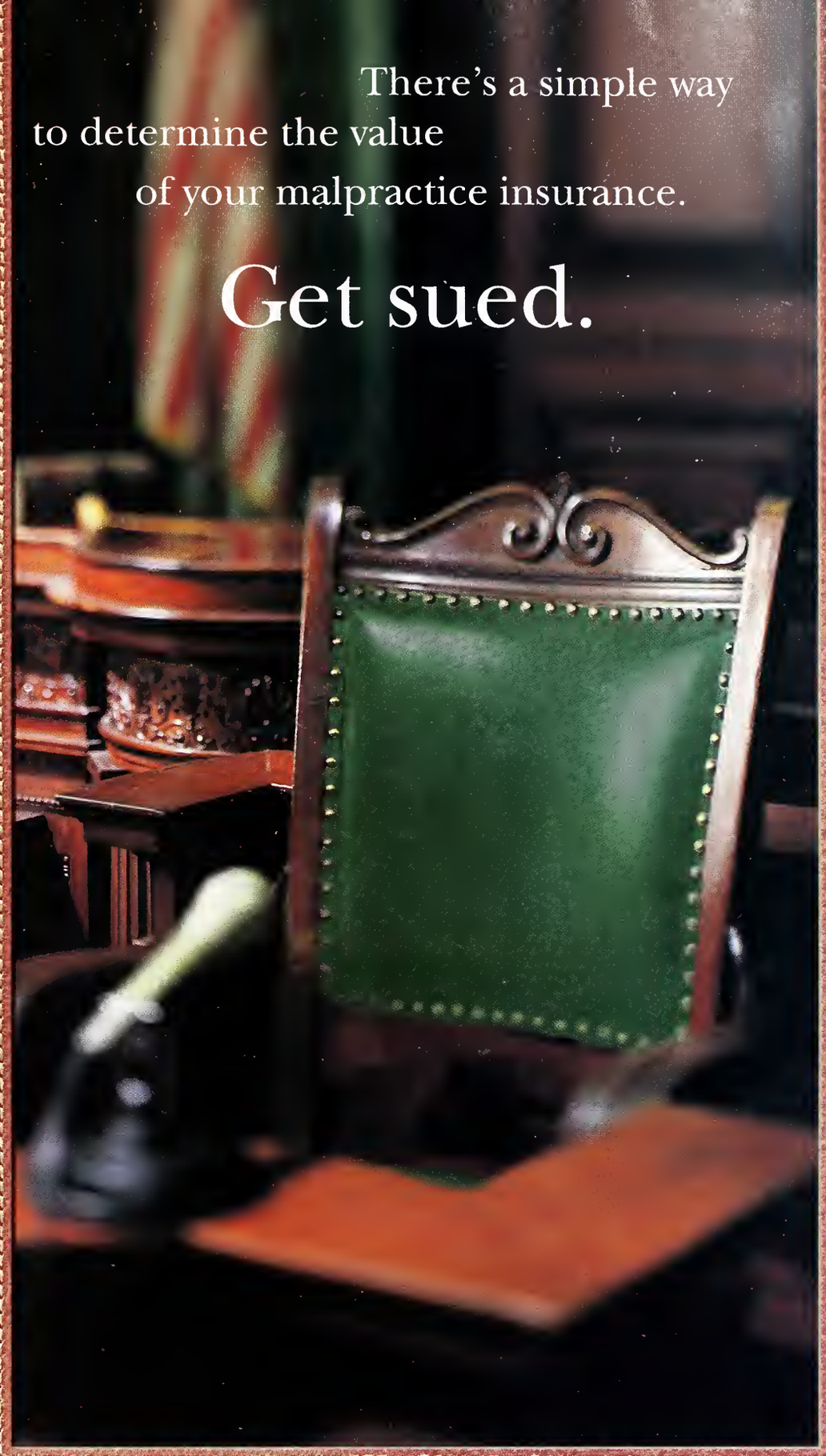



SOLUTIONS

• Emergency Medicine • Locum Tenens

ACUTE CARE, INC.

For more information, please call
800.729.7813 or 515.964.2772
e-mail address: jeffw@acutecare.com
home page: http://www.acutecare.com



There's a simple way to determine the value of your malpractice insurance.

# Get sued.

We said it was simple. We didn't say it was a lot of fun. But you get what you pay for. And with Medical Protective you're paying for a company that wins 90% of its cases that go to trial with a vast majority closing with no payment. You're paying for coverage that fits your needs and a policy that leaves the final decision to settle in your hands.*

You're also paying for something else – peace of mind. A peace of mind that was recently strengthened when The Medical Protective Company became a part of Employers Reinsurance Corporation, a GE Capital Services company. This union solidifies our absolute commitment to the protection of doctors like you. If your most valuable asset, your reputation, is on the line, protect yourself with our unparalleled defense strategy. Nearly 60,000 of your colleagues do. For the Medical Protective representative in your area, call (800) 344-1899.

www.medicalprotective.com

**The Medical Protective Company®**

**Unless prohibited by law.*




## Physicians are leaving patient care for other jobs and finding life less stressful. Why did they leave? What are they doing now and what do they miss?

By Howard Bell

Warren Hoffman, Ph.D., is back from the front-line trenches of patient care with disheartening tales of physician discontent. A psychologist and executive consultant with Personnel Decisions Intl. in Minneapolis, Hoffman spent three years interviewing 511 physicians, all ages and specialties, in 200 practice settings across the country. In his new study, "Healthcare in Search of a Cure," he reports that a sobering 45 percent of doctors said they were seriously considering leaving clinical medicine. More than half said they would not encourage their children to become doctors. Most physicians age 55 or older admitted they "can't wait to get out."

Frustration with managed care and exciting opportunities in Internet ventures, medical technology, and finance are prompting doctors to stop working with patients, cut back to make room for a second career, or in some cases, leave medicine altogether. *Minnesota Medicine* talked with four of them, in addition to one who in her mid-40s launched a medical career.

## RECHARGED
### TIM CRIMMINS, M.D.

Tim Crimmins, M.D., practiced emergency medicine at Hennepin County Medical Center for 17 years before deciding he'd had enough. He left in 1998 at age 43 to become vice president and director of Health, Safety and Environment for General Mills.

"I loved emergency medicine," he says. "I miss the doctors and nurses at Hennepin, but the hassle factor got to be too much. You're beaten down by government regulation, liability, risk, and documentation requirements."

For starters, emergency doctors work under a cloud of professional liability that's looming larger and darker. "ER doctors make snap decisions that affect patients' lives," says Crimmins. "We don't develop the kind of long-term relationships with our patients that build understanding and reduce the likelihood of litigation."

The Emergency Medical Treatment and Active Labor Act makes it more likely emergency physicians could face criminal penalties if they transfer a patient to another facility before that patient is adequately stabilized. Meanwhile, Medicare requires more and more ER documentation to avoid fraud and abuse charges. Couple that with reduced Medicare funding for medical education. "With less money to help the indigent, it becomes harder to provide quality care," Crimmins says.

ER medicine takes a toll over time—physically and emotionally. Erratic, often frenzied hours make for poor sleep and confused biorhythms. "It's not a problem when you're in your 30s," Crimmins says, "but at my age you start to feel it. It's also dangerous work. Every day, you could be spattered with blood contaminated with HIV or Hepatitis C. Over time, this becomes a concern. You have your family to think about."

The risks became more real in 1994, when homicides and gunfire were front-page news in "Murderapolis." "Gun shots were fired at the ER and in the neighborhood," says Crimmins. "You start to worry about your personal safety. I was starting to feel a certain loss of exhilaration about practicing medicine."

All these worries prompted him to say yes when Jim Craig, M.D., former medical director at General Mills, asked Crimmins if he'd like to step into his shoes once he retired. It seemed like a good fit. Crimmins had occupational health training and had done some consulting for Pillsbury.

Crimmins feels exhilarated again—not the adrenalin-pumped surge he felt in the ER, but the meeting-new-challenges high that he gets in a job where his ideas are heard and where he can help advance the mission of a multinational conglomerate.

Crimmins likes the new pace. In the ER he "raced around for eight hours putting out fires." Now he's planning ahead and preventing problems from occurring. "There's lots of stress in the corporate world, too, but it's more controllable and even-keeled, without the wild ups and downs of ER medicine." He works 8 a.m. to 6 p.m., Monday through Friday. His home is 10 minutes away. "It's far easier on my family. They used to really pay a price for my schedule."

Crimmins spends half days seeing patients at General Mills' primary care clinic, treating work-related and nonwork-related health concerns of employees and their families. And he still does initial treatment for work-related emergencies.

He spends the rest of each day doing administrative medicine, which, he says, is not as boring as you might think. "I'm a strategic thinker," he explains. "I devise ways General Mills can create safer workplaces for employees and keep injury rates low." He also designs employee primary care programs that emphasize prevention. "We're self-insured," he says, "so we can craft structures that encourage people to live healthier lives. It makes me feel good to work with a relatively healthy population cared for by a good system in a company that makes good things for people. These are exciting times for General Mills and for me."



PHOTOGRAPHS BY JOHN NOLTNER

*Tim Crimmins, M.D., MMA Board chair from 1994 to 1997, left the Hennepin County Medical Center ER after almost two decades to become vice president and director of Health, Safety and Environment for General Mills.*

## TAKING STOCK
### JOEL GREENWALD, M.D.

Out of respect for his friends and colleagues who still work there, Joel Greenwald, M.D., does not dwell on why he left a 10-year internal medicine practice with a major Twin Cities health system. "I simply had no control over my schedule, my salary, or my benefits," he says.

Today, at age 40, he's a certified financial planner with Raymond James Financial Services. His office is in Edina. His clients are mostly doctors. For three years Greenwald thought about making the switch. He briefly contemplated joining an independent practice group but rejected that idea. "I found my colleagues in private practice were in pretty much the same boat as I was. Everyone's beholden to the Twin Cities' 'big three' payers. If I were 50, I'd tough it out, but the money saved on health care just keeps coming from the doctors' pockets."

Greenwald continued to practice full time while completing financial planning course work that culminated in a two-day national exam. "It was rigorous," he says. He started his new career cautiously—two days a week while practicing medicine three. "Things in medicine were just getting worse, so I saw no reason not to continue down this new road." Last June he left medicine, though he keeps his toe in the water as a preceptor for residents a half day a week. "I love teaching," he says. "I couldn't give it up."

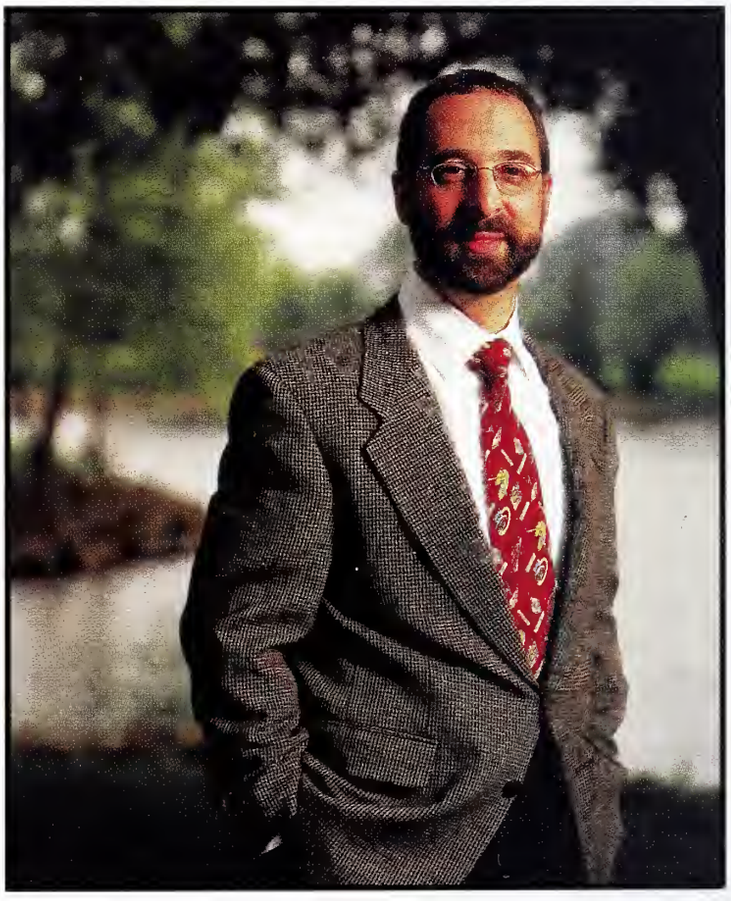
As a general financial planner, Greenwald helps clients plan for retirement, protect their estates, and pay for their children's education. He also buys and sells stocks, mutual funds, and life insurance, and has designed retirement plans for medical groups. An independent contractor, he doesn't sell proprietary products, so he has no incentive to steer clients toward particular investments. Being a doctor has its advantages when helping other doctors with their finances. "Physicians trust me sooner than they would trust someone else. We speak a common language and share the same experiences. [Lack of] trust is the biggest barrier to people seeking financial help."

Should doctors seek financial help? "One hears that physicians are especially bad at financial planning. I've not found that to be true. Doctors are really no different than any other busy professionals who don't have the time or inclination to do it all themselves."

Greenwald likes the fact that his new career offers a more direct link between doing a good job and being successful than he had as an employee of a large health system. If anything, he works longer hours now than he did as a doctor. He often works evenings because that's when his clients are free to meet with him.

Leaving medicine was not easy for Greenwald. His paternal grandparents were doctors, and his father is an oncologist in New York. Most of all, Greenwald misses his patients. "It was hard to say goodbye. For four or five months, I was saying goodbye to long-time patients. It was tough. You realize you build relationships with people that are special and unique to medicine."

Would he ever go back? "I'd consider it if medicine changed, but I don't see that happening." A group of "fiercely independent" doctors two blocks from Greenwald's office invited him to join their group. No thanks, he told them. He's enjoying his own newfound independence.



*Joel Greenwald, M.D., left a 10-year career in internal medicine to become a certified financial planner with Raymond James Financial Services.*

# HEALING HEART, MIND, AND SOUL
## M. BRIDGET DUFFY, M.D.

In her last year of residency, M. Bridget Duffy, M.D., sat at the bedside of a postop cardiac bypass patient in critical condition. "Most of his organs had failed," she recalls. "I watched as specialists cared for the parts, not the patient. No one touched the patient. It occurred to me—the patient is not diseased and fragmented, the system is."

That one patient taught Duffy more about medicine and about herself than all her years of training. That same day, Duffy received in her mail a medical journal containing an interview with Earl Bakken, inventor of the pacemaker and co-founder of Medtronic Inc. In the interview, Bakken described his dream of building a hospital in Hawaii that would incorporate his philosophy of holistic, patient-centered care. "I thought, 'Wow, there's someone else who thinks like I do.' " She called Hawaii information and got Bakken's number. "Being young and naïve has its advantages," says Duffy. "I didn't know who he was. I just liked how he thought." Bakken's hospital was a couple years from being built, but that didn't matter. Duffy had found a professional soul mate. She and Bakken agreed to stay in touch.

Her experiences that day eventually prompted Duffy to leave clinical medicine, but first she and a colleague persuaded Abbott Northwestern Hospital to create an inpatient hospitalist service. Duffy coordinated a team of physicians who act as quarterbacks for patients' care, explain to patients and families what is happening and why, and teach patients what they need to know to live with their condition.

Duffy's efforts succeeded. But managed care pressures to see more patients in less time for less money grew until, she says, "there was no time or reimbursement for the human side of medicine. I could no longer bring who I am as a person and a clinician to the job."

Several years into her job at Abbott, Duffy's phone rang. Medtronic calling: We like how you think. Can you work with us and help us better understand the needs of patients and physicians in this current managed care environment? Duffy decided to make the move.

"When I first left Abbott for Medtronic, I felt crisis and inner turmoil," Duffy recalls. "I felt I was leaving medicine. I wondered, 'What am I doing here. Do I really fit?' "

Like a glove, it turns out. Three and one-half years later, she's never felt more passionate about what she does. As medical director for Medtronic Inc., Duffy leads initiatives that focus on patient-centered care. In the best of all possible worlds for Duffy, she uses her brain to create what comes from her heart—care models for cardiac and neurology patients that merge science with the human side of healing. "My dream is that patients with chronic disease will no longer be looked at as a disease or a device but as human beings with needs that go beyond science. This is the future direction of medicine."



*M. Bridget Duffy, M.D., left clinical medicine to become medical director of Medtronic Inc. and director of Medtronic Foundation's Health Center Leadership Grant Program.*

As director of Medtronic Foundation's Health Center Leadership Grant Program, Duffy provides support to leading medical centers that are creating and evaluating programs for patients with chronic cardiac and neurologic conditions. These centers integrate into their care models, tools, and resources—including information about nutrition, exercise, and mind, body, spirit strategies for coping with stress—that help patients live with chronic disease. They also connect patients with others who have similar illnesses. The foundation has awarded grants to Scripps, Harvard, Stanford, Duke, and Allina.

By creating partnerships with these centers, Medtronic expects these programs will improve patient and economic outcomes. "Eventually, I hope these programs will help change reimbursement policies," says Duffy. "We're supporting centers that are shaping systems around the patient's needs, instead of defining the patient's needs

by what the system happens to offer."

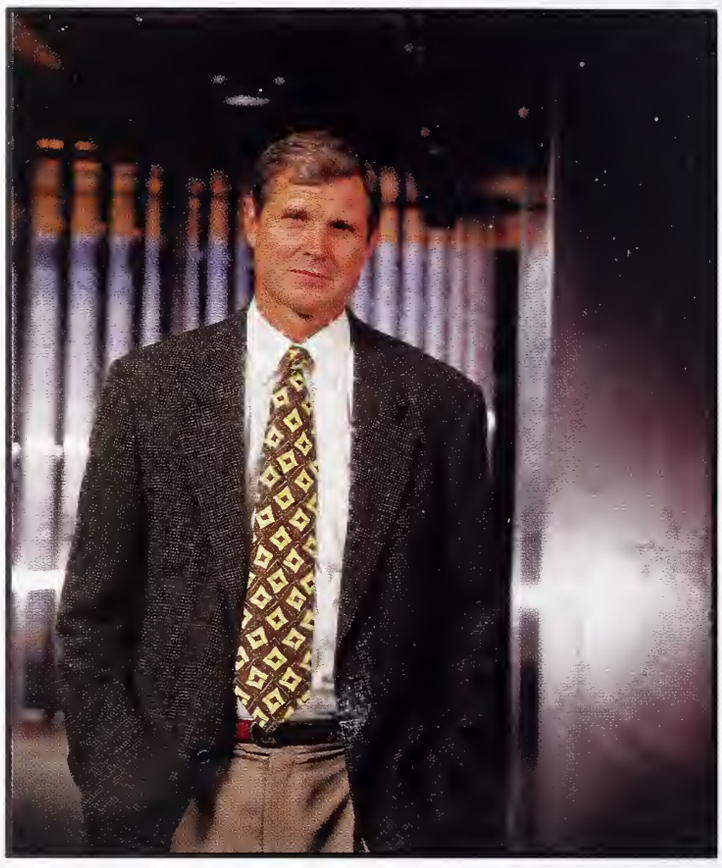
Many would agree that Duffy's is a dream job—traveling to top cardiac and neurology centers to talk to some of the most knowledgeable executives and physicians in their fields about the future of health care. "When I describe my beliefs on healing and medicine, they'll close their door and quietly tell me, 'I feel the same way, too, and so do my patients.' We're creating environments in which doctors like myself can practice."

Duffy is troubled by the phone calls that she gets from doctors thinking of leaving medicine because they're frustrated with how they are forced to practice medicine. "The good ones are leaving," she says. "What keeps me going is knowing I'm helping change an environment that keeps doctors from practicing the way they want to practice."

"You're succeeding at what I tried to do for 20 years at Medtronic," Earl Bakken told Duffy. "Keep going."

Duffy doesn't worry anymore about leaving medicine. She never left.

## 'PLAYING' WITH COMPUTERS
### DOUG SODERBERG, M.D.



*Doug Soderberg, M.D., balances his work as a computer designer at cMore Medical Solutions with a part-time ob/gyn practice in south Minneapolis.*

Doug Soderberg, M.D., does not mince words when you ask him why he quit medicine. "I was burned out and unhappy. I was tired of seeing 35 to 40 patients per day. I felt guilty I couldn't spend more time with them."

Today, the 46-year-old ob/gyn works for cMore Medical Solutions in the Minneapolis warehouse district. He creates content for Web-enabled software tools that make physician documentation faster, easier, and more complete. But that's only part of the story. After one year away from patient care, he missed it so much he went back, but only half time and under his terms.

Soderberg got the itch to leave medicine in 1998. "I was having a disagreement with one of my partners about an internal matter. He said, 'Go home and think about it.' On the drive home, I did think about it—but instead, I was thinking about quitting. I realized, this is what I need to do—what I want to do."

Soderberg had been fascinated with computers since junior high in the late '60s, when punch-card computing was cutting edge. He went into medicine instead partly because it offered so many career paths. "I remember writing that in a medical school application essay. I knew if I was unhappy doing one thing in medicine, I could do something else."

After leaving the Edina clinic in 1998, he worked for Integrated Network Solutions developing client contacts. As an independent consultant, he helped Midwest Medical Solutions develop an e-portal for its Web-based practice management software. The computer bug bit.

"Daddy, are you ever going to be a doctor again, instead of playing with computers all day," his kids asked him. His wife, Terri Johnson, M.D., also an ob/gyn, was a bit perturbed. "She didn't think it was fair that she still took calls when I don't even wear a beeper."

Soderberg likes creating doctor-friendly software. As it turns out, he also likes practicing medicine more than he realized. He joined Quello Clinic in south Minneapolis less than a year after leaving his Edina practice. "I love operating and working with my hands. I like the fact I can help patients rapidly. I missed the prestige and the ego gratification you get from patients saying thank you. The 'thank-yous' don't happen much in the business world."

Soderberg started at cMore last December. He doesn't do programming; he designs the look and feel of the software's screens and interfaces. "I ask myself, 'How would a clinician using this day in and day out use it most efficiently?' As doctors, we've got to do a better job of documentation. As reimbursements go down, we need to decrease our overhead and work smarter. That's what this software helps you do."

The Web-enabled documentation software lets you include images in the medical note, labeled with a brief description of what you found. Unlike hard-copy photo-

graphs, the pictures won't fade over time or get lost or misplaced. The software automatically documents parameters of the surgery and assigns CPT and ICD-9 codes. Future versions will allow OR personnel to quickly document a procedure as it occurs in the surgical suite. It'll be customized to incorporate each physician's surgical methods. The software decreases time-consuming visits to the medical records department to sign chart notes.

Now, Soderberg enjoys the best of both worlds. He takes care of patients and he "plays" with computers. Instead of 30 patients a day, he sees a dozen or so and has time to linger with each. He does less primary-care work, and instead sees patients who've already been seen by a primary care doc and need an ob/gyn consult. "It's much slower paced, more enjoyable, and less exhausting," he says. "I now have a bit of insight into how medicine was practiced in the '60s and '70s. No wonder my older colleagues loved medicine so much."

## DREAMS COME TRUE
### WENDY SLATTERY, M.D.

Medicine's turnstile swings both ways. While some leave medicine for new careers, others, like Wendy Slattery, M.D., enter medicine after successful careers in other fields. Slattery decided she wanted to be a doctor when she was 10 years old but didn't complete her medical degree until she was 45. Now 47, she's a second-year internal medicine resident at Hennepin County Medical Center.

"My first patients were sheep," says Slattery, recalling her girlhood days on the family farm near Moorhead where she helped her father deliver baby sheep, bob their tails, and give them shots. But her high school guidance counselor told her, no, she shouldn't be a doctor. It wasn't a ladylike career. Had she considered home economics?

Dutifully, Slattery enrolled at North Dakota State University and got a B.S. in home economics. She never used it. "I don't cook and I don't clean," she says, "but we have a happy home and I'm good with a microwave." Instead, she moved to Minneapolis to look for a job, with nothing particular in mind as long as it had nothing to do with home economics.

It was 1977 and the computer hardware industry was booming in the Twin Cities. "Companies couldn't find enough people with computer science degrees," says Slattery. "If you had any college degree, that was good enough. They'd train you." Digital Equipment Corporation trained Slattery to analyze failure rates in hardware components used by US West, 3M, and other large computer-dependent enterprises. "That would never happen today," she says. "I was in the right place at the right time."

At Digital, she never thought about medicine, consumed instead with computers and business. Digital promoted her several times. Along the way, she met her husband, Terry. In 1984, they left Digital and started their own strategic marketing and sales training company, Slattery Sales Group. "We help companies nationwide market their products better than their competition does," she says. Their client list includes computer companies, medical device manufacturers, and investment banking firms.

Through the years, Slattery and daughter, Jennica, did missionary work overseas. They helped build a Bible school dormitory in Argentina and an elementary school in Aruba. When they returned home from a trip to Buenos Aires, Slattery's desire to be a doctor resurfaced strong as ever. "I decided it was now time for me to do something beyond myself—something for others. I remember thinking, 'The next time I do missionary work, I'll do it as a doctor.' "

Slattery left her job as CFO of the family business, letting her husband run the company with help from an outside consultant. The family moved to Duluth so she could complete her first two years of medical school at UMD. "My husband was very supportive," she says. "And Jennica was extremely excited that her



*Wendy Slattery, M.D., switched to medicine in her 40s, after years in the computer industry and after starting and running her own marketing firm.*

mom was going to be a doctor."

At age 42, Slattery was the oldest student in her class and the only mother. Her age made no difference. She fit right in. In fact, she found that being older had its advantages. "I knew how to work long hours," she says. "I knew from experience that massive effort produces results. I was certainly focused." Slattery says medical school was a lot of work, but doable. She rarely studied past 10 p.m., although she studied every day and got up at 5 a.m.

Perhaps her Midwestern upbringing helps explain Slattery's friendly, straightforward style and her strong dislike of the occasional arrogance that she encounters in medicine. "I don't like arrogant attitudes in medicine or in business," she says. But otherwise, she loves residency at Hennepin. "I like that it's a village of committed professionals," she says. "I like the camaraderie. We learn from each other. We support each other. That's the type of environment I want when I'm done here."

Slattery would like to practice in a suburban clinic or in a small town near the metro area. She's not interested in 100-hour work weeks. Money is not her motivation. It's the contact with patients she enjoys. Like most residents, Slattery hasn't dwelled much on managed care and how it's changed the face of medicine. "I'm a little immune to all that right now," she says. "I don't have any frame of reference for how it used to be before managed care. I do know that medicine, like business, must grow and adapt to change."

Slattery will stay involved in the family business because it's the main topic of conversation at the dinner table. But she's a doctor now. A 10-year-old's dream has finally come true. MM

*Howard Bell is a freelance writer living in Onalaska, Wisconsin.*

ASPEN Medical Group

Aspen Medical Group is a 160+ provider multi-specialty group with 9 clinics located throughout the Minneapolis / St. Paul metro area. We are currently seeking BE/BC physicians for the following specialties:

***Dermatology***
***Internal Medicine***
***Urgent Care***

Aspen Medical Group is governed by its own physicians and health care providers. Guaranteed base salary available for the first two years. Competitive benefits package.

For further information, please contact:

Nancy Borgstrom, Provider Services Coordinator
1020 Bandana Boulevard West
Saint Paul, MN 55108
phone 651-641-7081 • fax 651-641-7151
e-mail nborgstr@aspenmed.org
EOE. No J-1 opportunities available.

**STOP HERE**

**YOU NAME IT–WE CAN MAKE IT!**

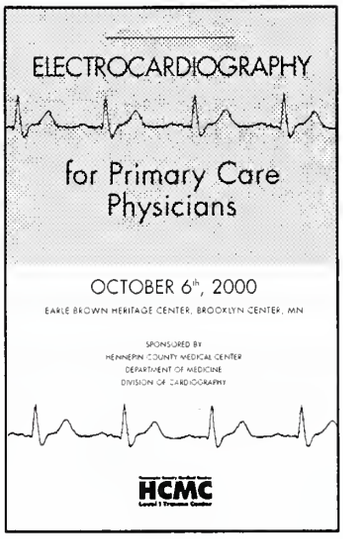
- Bioidentical Natural Hormone Replacement Therapy
- Alternative routes of administration
- Discontinued or hard to find medications
- Custom dose and dosage form
- Solutions for unique medical problems
- Achilles Express Bone Density Testing

We are your "Problem Solving" Specialist!

***Custom-Rx Compounding Pharmacy***

Verne Betlach R.Ph. FIACP
Richfield Professional Building
6519 Nicollet Ave. S, Ste. 201
612-866-2211 fx 612-866-9217

# CME @ HCMC







**Hennepin County Medical Center (HCMC) is one of the major teaching hospitals in Minnesota. Continuing Medical Education (CME), formerly known as the Office of Academic Affairs, was established at HCMC in 1983.**

The mission of HCMC's CME Program is: "to provide organized, planned education activities to help physicians improve delivery of medical care."

## ACCREDITATION

Hennepin County Medical Center is accredited by the Minnesota Medical Association (MMA) to sponsor Continuing Medical Education for physicians.

Hennepin County Medical Center designates hour-per-hour credit hours in category 1 of the Physician's Recognition Award of the American Medical Association.

## FOR MORE INFORMATION

We would like to hear your comments and suggestions for future CME activites!

**Hennepin County Medical Center**
Continuing Medical Education
701 Park Avenue, Mail Code 861-B
Minneapolis, Minnesota 55415-1829

612-347-2075 Fax: 612-904-4210
Toll Free: 888-263-4262
Email: robin.hoppenrath@co.hennepin.mn.us

## EMS CERTIFICATION COURSES

Emergency Medical Services offers numerous courses throughout the year. To request a listing of classes or a course brochure, please call 612-347-5681. Visit the EMS Website at www.HCMC.org/DEPTS/EM/EMSED.

FALL 2000

## CONFERENCES:

**October 5-6**
Annual Forensic Science Seminar

**October 6**
Electrocardiography for Primary Care Physicians

**November 2-4**
Annual Orthopaedic and Trauma Seminar

**November 3**
A Global Affair: Caring for Immigrants and Refugees

**November 10**
Annual Minneapolis/St. Paul Diabetes Forum

**December 8**
Ninth Annual Family Practice Update

Hennepin County Medical Center
HCMC
Level 1 Trauma Center

# PHYSICIANS who Write

*Compiled by Elaine Cunningham*

Physicians have long been putting pen to paper to create more readable prose than the illegible prescription forms for which they're famous. They have often turned to authoring novels, short stories, screenplays, and poetry to illuminate the human drama they encounter every day in their careers.

Minnesota has its share of physicians who have found success as authors. In this issue, *Minnesota Medicine* highlights seven such physician/authors whose writings range from poetry to fiction to humorous observations. All those featured have juggled or are juggling full-time medical practices with their desire to write. Here are their stories.

*William A. Bonadio, M.D., ER physician*
*Children's Hospitals and Clinics, St. Paul*
*Medical degree from the Medical College of Wisconsin*
*Author of "Julia's Mother: Life Lessons in the Pediatric ER"*

"I began writing this book when I was 40 years old and completed it five years later," writes William A. Bonadio, M.D., who has spent the past 16 years as a pediatric emergency room physician. "At the time, I didn't find the technical aspects of my job to be the challenge that they once were. I was more drawn to examining the life lessons that I've learned over the years from encountering people at their most vulnerable and heroic moments."

Despite the publishing of his book, Bonadio continues to work full time as an emergency room physician and squeezes in writing between his career and family. Combining two careers is very difficult and time-consuming, he says. "Each takes a lot out of you. And they both require a tremendous amount of discipline."

In his book, "Julia's Mother: Life Lessons in the

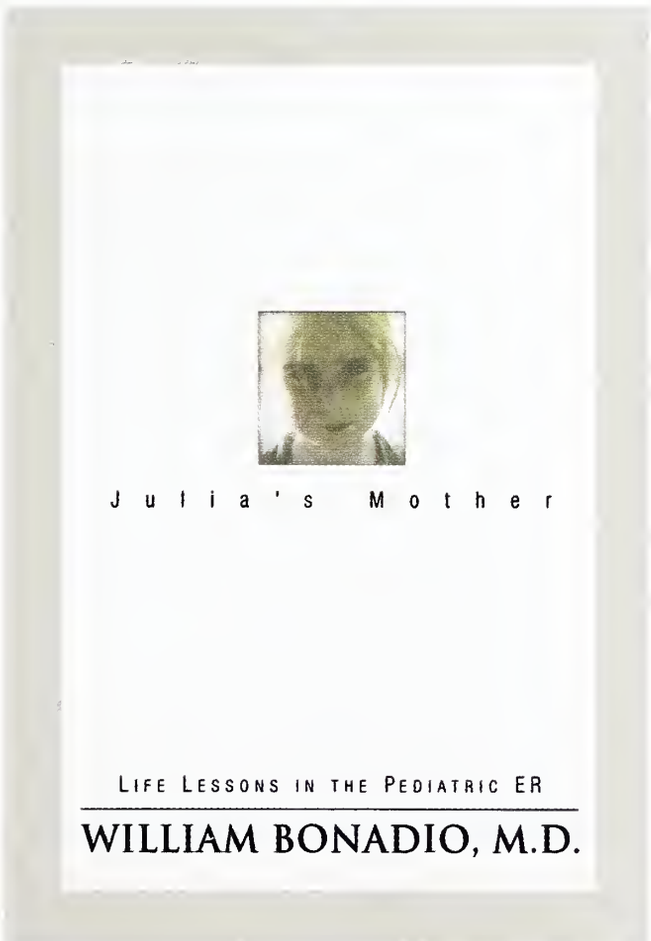
Pediatric ER," Bonadio speaks to the emotional side of being an emergency room doctor dealing with tragedy and human frailty. In the first chapter, Bonadio recounts the case of a 6-year-old girl named Julia who has been critically injured in a car accident. After more than an hour of trying to revive her, he calls off the resuscitation, pronounces her dead, and prepares to give Julia's mother the news.

## Excerpt from: 'Julia's Mother: Life Lessons in the Pediatric ER,' St. Martin's Press, 2000

Word is the girl's mother has just arrived, and is in the "Quiet Room" down the hall. "Shouldn't we go talk to her?" someone suggested. "We" meant me. What would I have to say? This weaver boy for the gods, clutching chilled red roses. How can I bring forth the telling of this? Make the necessary disclosure in the instant offered? The words, the manner of articulating them—will any of it come to me?

A final look back at the matter—her stillness is as a nightingale sleeping on its wings. She was only 6 years old when her hair was last braided, when she lost her teeth again.

As I begin to leave one task for the other, I realize that I don't know this girl's name. How pitiful, that strangers can collide like this in a most remarkable interval for all involved—yet remain anonymous. She'll never know how hard I tried for her, let alone my name. I cut off her plastic ID wristband—her name is Julia—this is all the information I need to bring to the next task, which is to carry her name, bear it somewhere down the hall, and tell her mother.




What do I say to this mother? Giving this kind of devastating news is always the responsibility of the doctor in charge. Yet I'm not any more qualified to do it than is anyone else. In this business, there's no more difficult task than to leave a failed resuscitation to go tell a parent of their child's demise. It's a killing thing to do; makes for more than one passing. There's never a kinder or more-skillful way to do it—you have to feel your way through each encounter, hope that you can give them something of what they need.

But what do I say to this mother? I have to remind myself—don't think, just react. Because they will drive the encounter. So you really can't prepare by trying to rehearse the "right" thing to say or do.

Go. I leave the ER arena for the Quiet Room. Pass down a long hallway—it's a blur stretched out, like looking backward through a telescope. Round a corner—there it is; the door is closed. Will the words come? Will family or clergy be there for support? Don't think, just react. I've been here before—you feel like a nervous intruder going in; and like an impostor when you finish and leave, because there is no greater truth than a mother advocating for her stricken child.

I knock, but can't feel the hard wood against my knuckles. What will I see inside? I carefully open the door—Julia's mother is alone there, standing in the corner with her back against the wall, her arms tightly crossed in front. Her face is flushed, her eyes so intensely focused on mine, her demeanor is vulnerable-pleading-defiant. Walk toward her. We are both lonely. Our eyes lock together—she sees inside me—the relentless fractional pause with no words between us tells all—"Please don't tell me my baby's gone," is pled. The husky voice does not seem to emanate from her body. Now she is waiting, to hear if her name is called.

"I'm sorry. She did not make it."

This is all I can bring forth—I have nothing else, there is nothing left to give her. Like a deaf man singing an aria. Yet these words beat down on her with the concussive inevitability of hammer blows. She would not have heard any more. In the insupportable moment, time is everywhere—and her face passes through all of the ages. She turns hard away from the light and heat of it, covers herself with already sapless arms; and swoons low to the floor, deeply sobbing. Never heard anything so frighteningly mournful—like the howl of a majestic tree caught deep in the torrents, lamenting the torque that gripped its fresh season of flourishing leaves and pulled all down to ruin. ...

# MSBC takes care of everything you need.



Your colleagues have honored you by electing you to serve as an officer of your society. They respect your professionalism and leadership skills. You've got the ideas and ambition it takes to make your society an integral part of your profession.

However, the thought of you and your office staff taking time away from patients to manage the day-to-day activities of your society somehow takes away the thrill of what should be a very exciting time for you.

Management Services By Choice (MSBC), a program of the Minnesota Medical Association, can help. MSBC offers a wide range of affordable, efficient services designed to meet the administrative needs of medical societies, large or small. Our professional staff will work directly with you to expand, improve, or develop new programs to best serve your membership.

**Here are some examples of what our clients say about us:**

**"I wholeheartedly encourage any specialty organization to engage this highly professional management service. It is well worth the minimal expense involved."**

**"I don't know how you do it all the time, but the meeting was fabulous! It couldn't have been better, it couldn't have been more precise, and everything worked. You are fantastic!"**

MSBC
MANAGEMENT SERVICES BY CHOICE
A PROGRAM SPONSORED BY THE MMA

**For more information, call 612/378-1875 or 800/342-5662, or visit our Web site at www.mnmed.org/MSBC.**

*Bruce Snyder, M.D., neurologist*
*HealthPartners, Minneapolis, clinical professor of neurology, University of Minnesota*
*Medical degree from Johns Hopkins School of Medicine*
*Poet whose work has appeared in* Full Circle Two *and the* Lake Street Review; *author of short stories published in* Sidewalks *and* Futures *magazines*

Dr. Bruce Snyder's writing has taken many forms. He has published more than 50 scientific articles and text chapters about neurology, written numerous opinion/editorial articles for local newspapers, had his poetry selected for inclusion in an anthology of Minnesota poets, and had several short stories accepted for publication in local literary magazines. All this while maintaining a busy practice in neurology for nearly 30 years.

"I've enjoyed writing since I was a kid," says Snyder. "My father was a great storyteller, maybe I picked it up from him. Spinning tales is just fun, writing a good story is very satisfying."

Over the past couple of years, Snyder has begun to slow down his medical practice, which has allowed him more time for writing. Yet, most of his writing, he says, reflects his many years in medicine. "Most of us write about what we know, so my stories are certainly colored by my medical experiences."

In addition to his writing, Snyder is a photographer and his work will soon be on display at Legacy Fine Arts on Grand Avenue in St. Paul.

## Excerpt from 'Weirdness Rules,' *Futures* Magazine, October 2000

I love my school bus. Betcha don't hear that very often. I get out of class, get my gear, hop on the bus, hide out behind a book and then I have almost an hour to figure out the basics. Which stop do I get off at? Which house do I go home to? Am I looking and talking the right way for the place that I'm going home to where I'm supposed to relax and do my homework?

Our driver, Federico, is Puerto Rican. "Call me Freddy," he says. He's an old guy, like maybe fifty, but nice and very gay, I mean out there. He giggles for God's sake. So of course the boys heap it on him. They just can't let it alone. They like wiggle down the bus aisle, holler out, "faggot," periodically. But these are the same dorks that call my best buddy Daniel a "tard," or a dummy. They don't have a clue but Daniel is obviously so deep, so ahead of those morons. Freddy just keeps smiling; he waits for me at the bus stop, then teases, "tsk, tsk you're la-ate RuthAnn" or sometimes it's like "have a nice nap, Lady RuthAnn? So-oo sorry to rush you."

Monday to Thursday I'm with Faye. She's my mom. Friday to Sunday I'm usually with Richard, my dad, and Ellen. Unless there are holidays or business, or one of them needs a mental health day or (Faye's term) a "personal time out." When I was seven I asked them for a calendar so I could keep track of my schedule.

Daniel says so what, what difference does it make? The parental units are all losers, the pizza tastes the same (damp rubber), the cable works at both houses. Just plant it and forget it, he says. Well fine, sure, why not?

But it's like this. Richard and Ellen live in a rambler and like to grill. Faye has a townhouse and serves only gourmet and new cuisine, even if it's à la microwave. Richard is allergic to garlic, Faye gargles with it. Faye is allergic to cats, Richard has two. I have to defur everything I own each time I see my mother.

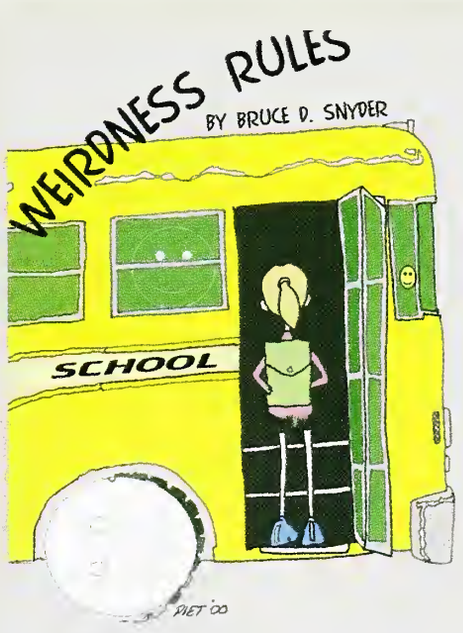


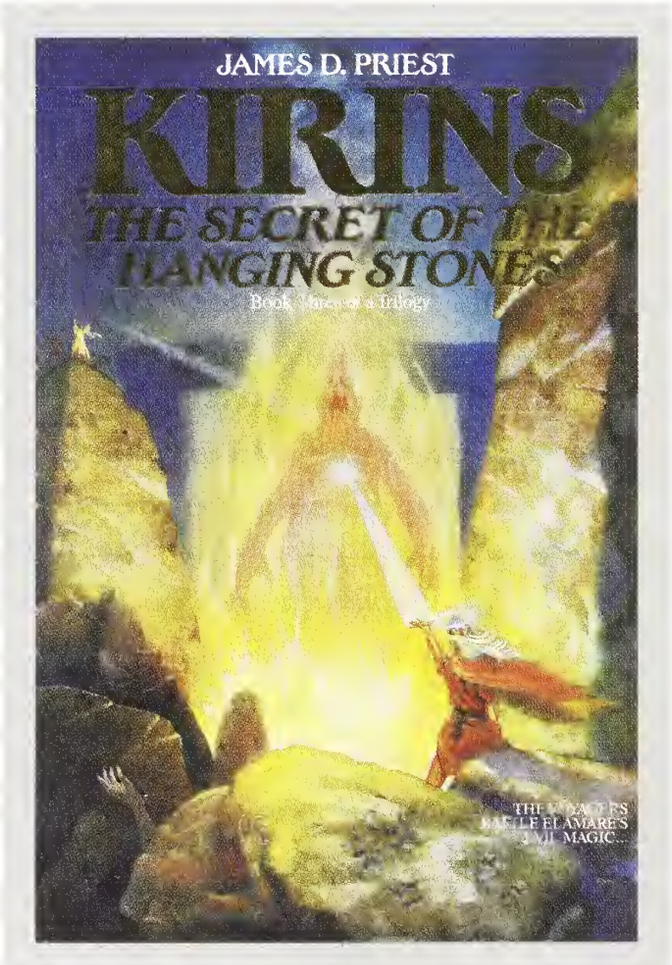

ILLUSTRATION BY PETER J. WELLING

*James D. Priest, M.D., retired orthopedic surgeon, Minneapolis*
*Medical degree from the University of Minnesota Medical School*
*Author of the fantasy trilogy "KIRINS," contributing editor for America Online's "Bonjour Paris," and senior correspondent for "Victoria Brooks' Greatest Escapes Travel Webzine"*

Someone once asked Dr. James Priest's wife how many hours a week he spent writing. Forty, she answered without hesitation. "Her answer surprised even me," says Priest, who in the past was engaged in a full-time orthopedic practice while writing his fantasy trilogy called "KIRINS."

"I wrote early in the morning, at night, on weekends, and on holidays. It became work only if I spent too long in front of the computer. Otherwise, it was the most pleasurable thing I have ever done." Now retired from his 21-year medical practice, Priest feels fortunate to have found this second career that has evolved into writing travel pieces for two different Internet sites in addition to his fiction writing.

"In 1985 I decided to do some writing not related to medicine," says Priest. "I have always had a good imagination. When I was small, I told stories to the other children on the school bus, and later to my children when they were young. I have enjoyed reading science fiction and fantasy, especially Tolkien. So, I decided to write a fantasy. But to challenge myself, I set the tale in today's world rather than in Middle-earth, or on the moon, or in the year 2025."




The kirins became a race of small, magical beings who in the distant past had lived in peace and harmony with humans. But after a conflict, the kirins had cast a spell to make themselves invisible, and after many, many years humans had ceased to remember them.

"It took me a few weeks to set ground rules for a kirin civilization, to make things fit properly and work," says Priest. "Then I sat down and began to write, and the story flowed. I had no occasions of writer's block. I did not work from an outline, but created the plot and characters as I went along. Before long I knew the ending, but had no idea the precise route I would take to get there, nor how long it might take." In the end, it took him four years to finish the trilogy. He just recently completed a sequel and has begun a fifth book in the series.

## Excerpt from 'KIRINS: The Secret of the Hanging Stones,' Yellowstone Press, 1993

Carrie was dumbfounded. Messages of great clarity were coming to her. But she could locate no source for them whatsoever.

The utterances were unlike anything she had experienced in her lifetime. She was uncertain whether she was hearing words, although the meaning was clear. Perhaps they were feelings and concepts and ideas. But whatever they were, the process seemed to bypass her hearing and go directly to her mind.

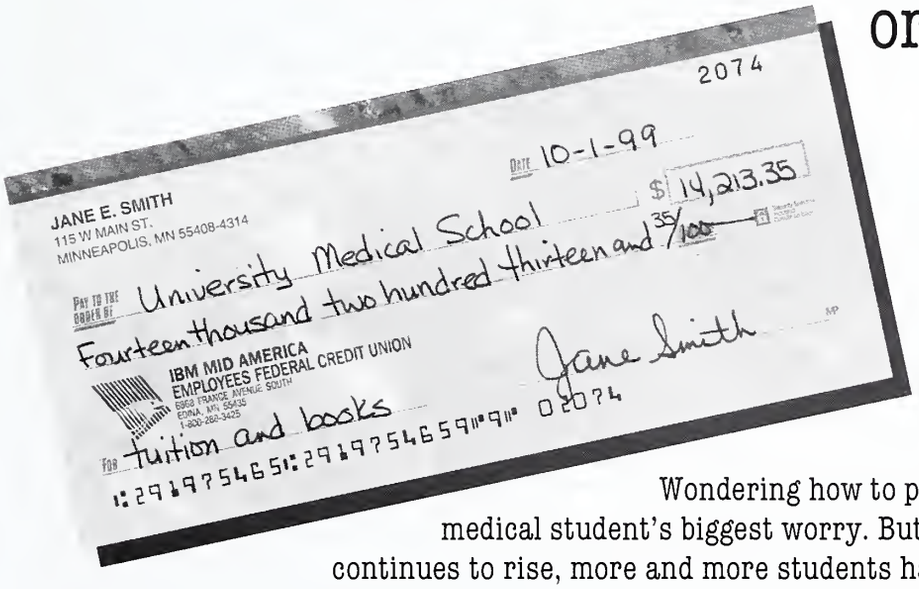
All at once she noticed something among the birds. At first it was only a hazy silhouette flickering insubstantially in and out of view. Gradually it became more opaque, and then it was there, taking shape until it became complete. It was the figure of a small creature, humanoid in form! Standing upon two legs, it was clad in the skins of animals, and was positioned next to one of the reclining gannets with a hand upon the great bird's shoulder. As Carrie stared in astonishment, the communication went on, but the mouth of the tiny being never moved.

*Can you see me now?* asked a gentle voice.

"Yes, I can," Carrie heard herself saying. "Who ... are you?"

*My name is Thelasa*, projected the small one. *I am a kirin.*

# Sometimes, the hardest part of medical school has nothing to do with gross anatomy or board exams.




Wondering how to pay tuition shouldn't be a medical student's biggest worry. But as the cost of medical education continues to rise, more and more students have a hard time making ends meet.

## They need your help.

For over 40 years, medical students have relied on the Minnesota Physicians Foundation (MPF) to help them become the next generation of physicians. Supported largely by the generous contributions of the members of the Minnesota Medical Association, MPF provides low-interest loans and scholarships to Minnesota's medical students.

The future of medicine depends on today's medical students. And they depend on you.

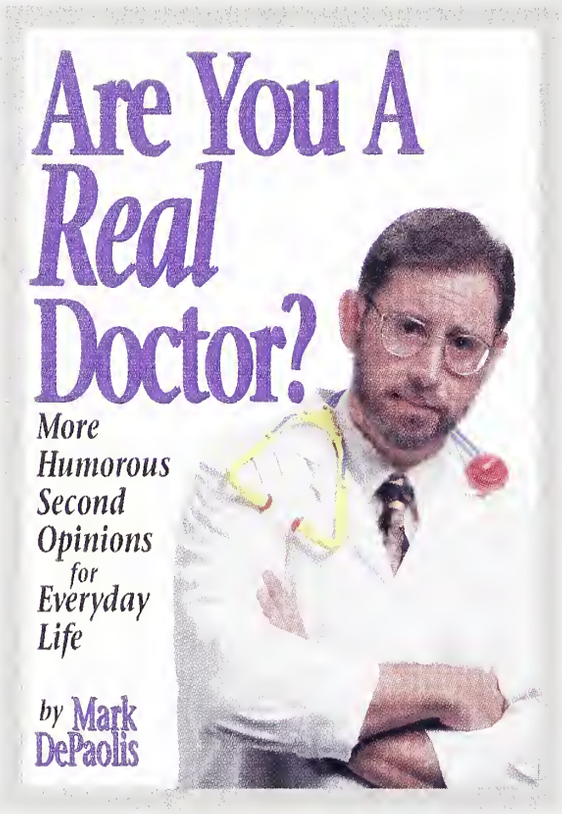
Contribute to the Minnesota Physicians Foundation.
For more information, please call 612/378-1875 or 800/DIAL MMA.

**MPF**

MINNESOTA PHYSICIANS FOUNDATION
A PHYSICIAN-SUPPORTED FOUNDATION OF
THE MINNESOTA MEDICAL ASSOCIATION

*A tradition of giving, a lifetime of commitment*

*Mark DePaolis, M.D., family practitioner*
*Park Nicollet Clinic, Brooklyn Center*
*Medical degree from the University of Minnesota Medical School*
*Columnist for the* Star Tribune *and author of "Trust Me, I'm a Doctor," "Are You A Real Doctor," and "Get Well Sooner."*




"As a child growing up in Brooklyn Center, Minnesota, I was always torn between my love for writing and medicine," writes Mark DePaolis, M.D., a family practitioner who works in a clinic less than two miles from his childhood home. "Often my mother would find me operating on my sister's stuffed animals and creating long narrative descriptions, in crayon, of the things I found inside.

"Later, I went to medical school, where creativity, while not actively punished, was certainly discouraged. It was only years later, while in practice, that I was able to put words together on paper without the overwhelming feeling that I should really be studying instead.

"I started with a series of short works, mostly prescriptions and lists of differential diagnoses. Eventually I moved on to longer pieces, such as insurance forms and disability statements. This led to a full-length screenplay, '41 y.o. Female c/o Back Pain w/ Radiating Symptoms,' and also a novel, which has been hailed as a masterpiece by all six people who have read it.

*Ben Boardman, M.D., family practitioner*
*Bloomington Lake Clinic, Minneapolis*
*Medical degree from Mt. Sinai School of Medicine*
*Screenwriter of "O'Gara's Jump" and "Taliesin Red"*

"I have been an avid writer since I first learned to write," says Ben Boardman, M.D., who for the past five years has combined his writing with his career in family practice medicine. Since the second grade he has produced unfinished stories and comic books, scripts for skits, farces, and articles for school papers. "Writing has been one of my sources of sanity," he claims.

Boardman completed his first screenplay during medical school. "I spent hours on the subway shuffling my scene cards and taking notes both to and from school while I shook loose the details of the day." To date he has written and circulated two screenplays: "O'Gara's Jump," a science fiction adventure, and "Taliesin Red," a semi-autobiographical drama. He wrote a children's book, "The Polar Bear of Avenue J," with Margie Newman, and is working on a thriller that takes place in a hospital.

Although Boardman has slowed down his writing pace these days to tend to family matters, he looks forward to more stories and screenplays. "Writing is freeing," he says. "It is a release of thought and emotion into an organized flow of language and rhythm, and it leaves me relaxed. I think that those in the medical field turn to

"After some time I approached the *Star Tribune* newspaper, where I was lucky enough to land a regular spot on the editorial page as the resident medical humor columnist. ... These rambling, incoherent rantings were eventually 'collected' (i.e., stapled together) into a book, and then another. I now plan to continue until I have an entire 13-volume set, which I will sell door-to-door as if they were encyclopedias."

DePaolis's column appears on Fridays in the *Star Tribune,* and he has also written for *Newsday* and *The San Francisco Chronicle.* Not surprisingly, he has performed standup comedy at clubs in New York and Los Angeles.

### Excerpt from 'Emily's, Whatever, Beeper,' *Star Tribune,* 1998

Why do teenagers need beepers? Do they even have emergency sales at The Gap? Don't they already know when "Dawson's Creek" comes on? They see each other every day, then talk on the phone all night. Do they need the latest digital messaging capabilities to let each other know that "Jennifer kind of likes Dylan"?

What kind of messages are teenagers getting on their beepers? To find out, I traded beepers for a day with a 15-year-old girl.

Emily Miller is a sophomore at a local high school, and she carries her beeper with her everywhere. She never turns it off. Last Friday we switched beepers, keeping track of our calls and forwarding our messages.

Granted, making this kind of trade was not without risk. At any time, cars full of teenage boys could have started pulling up to my house and asking for dates. Luckily, it was only for a single day, and the experiment was over before I started hanging up photos of Leonardo DiCaprio or wearing enormous bell-bottom pants.

One difference was immediately obvious—her beeper is a lot prettier than mine. She has decorated the plastic case with sparkly fingernail polish, giving it a stunning, glamorous appearance that made all the other doctors jealous.

Surprisingly, in many cases Emily's messages were not that different from the usual type of messages I get on my beeper:

Mine: Patient wonders what to put on bee sting.

Hers: Chelsey wonders what you are wearing tomorrow.

Mine: Call nursing home, need transport.

Hers: Call Desiree, need ride to game.

Mine: Lost prescription, need more allergy medicine.

Hers: Lost homework, English teacher is SO weird.

This went on into the night, up until after the football game was over and everyone was home from Perkins. Needless to say, by morning I had a new attitude about beepers. I no longer hated my beeper. I hated Emily's beeper.

writing because they are exposed to the intricate details of human dramas every day, and to emotions and events so powerful that they cannot be held in. Yet we find the very emotions and events are too complex to share with just anyone and they cannot often be expressed in daily talk. So we write. Chekhov was a great lover of the human spirit and understood the inherent contradictions that make each of us. That must have contributed to both his fascination with medicine and his desire to tell the stories to others through theater."

### Excerpt from 'Taliesin Red,' 1997

Setting: David Parris is 13 and growing up in a family consumed with the fiery events of the late 1960s. His mother is a needy and outspoken woman and an antiwar organizer. As she is drawn deeper into the struggle, she slips out of the lives of her family and leaves David, the youngest, to fend for himself. He struggles to survive in school and at home while protecting himself and his mother from the onslaught of reaction to her activity.

INT. PRINCIPAL'S OFFICE DAY

Mr. Jackson sits on the edge of his desk. He sweats and tugs at his collar. A husky man with big features and a good suit leans against the window sill. David enters the room and shuts the door. Both men turn to look at him.

JACKSON: (pleasant) David. Come in. Sit down.

JACKSON: David Paris, this is Lloyd Gallo. (David sits.)

GALLO: Good to meet you, David. (David stands up and shakes Gallo's hand.)

JACKSON: David, Mr. Gallo is from the FBI. (David startles. He sits. He regards Gallo closely.)

JACKSON: It's all right, son. You haven't done anything wrong.

GALLO: I'm here looking for your help, David. I need to talk to you for a few minutes.

DAVID: Is my mom all right?

GALLO: (laughs) Far as I know. She's just fine. That's not what I'm here to talk to you about. (Long pause.)

DAVID: Does she know you're here talking to me? (Gallo lets out an embarrassed laugh. Jackson smiles. He wipes his face with his handkerchief.)

JACKSON: (reassuring) No, David. See, Mr. Gallo came to me. He wants to ask you some questions, that's all. I ... I am pretty much responsible for you in your parents' absence. "In loco parentis" it's called, as a school official. (David sits stiffly, eyeing both men warily.)

DAVID: What do you want to ask me?

GALLO: I just want your opinion, David. About some people you might know. I ... my department is concerned about violence we hear may be about to occur at the university. We're afraid people may be hurt. We wonder what you might have heard. If you might have heard something around your house that worries you.

DAVID: I don't know what you're talking about.

JACKSON: David, you're a good young man, son. This isn't about you.

GALLO: This is about some rough people who may have gotten mixed up in your mother's circle of friends. People I don't think she would approve of ... (Gallo hands David a mug shot of Luke, the man Evelyn threw out of the house for smoking reefer.)

GALLO: You recognize this man? (David looks at the photo, then at Gallo in silence. The room is quiet. David is trembling.)

DAVID: I guess you should ask my mother ... about people you think she knows.

GALLO: (smiles) I guess I should. Fact is, I hope to get out to see her sometime today. But I am reaching out to you now. I need you to help us with this problem. (Silence. David wets his lips. Jackson watches him anxiously. David finally shakes his head. He hands Luke's photo back to Gallo.)

DAVID: I'm not telling you anything, Mr. Gallo.

JACKSON: David!

GALLO: I don't mean to make you uncomfortable, David. ...

JACKSON: David! This is the FBI, an FBI agent you are talking to!

DAVID: I don't talk to the FBI.

GALLO: Please understand. Your mother is not in any trouble, neither are you. But some bad things may be happening, and we need to know about them. We need to know about anything you've heard or seen.

DAVID: I don't talk to the FBI.

JACKSON: This is your duty, son!

GALLO: David, I want you to understand something. If there is violence, there are going to be big investigations, trials. If you know something now that could have helped us prevent a crime, you could go to jail.

JACKSON: You're a good boy, David. We know that here. You're in no trouble.

GALLO: Is that what you want? You want to end up on the witness stand, facing people, talking to people in a public trial? You'd be under oath, pointing out a lot of dangerous people to their face. Your mother would have to do that, too.

DAVID: My mother would never do that!

GALLO: Nobody would have to do that at all, David. If we find out what's going on in time to stop it, then this was just a private conversation, that's all. That would be easiest for everybody. I need to know about a couple of people whom you may have seen. (David stands.)

DAVID: Mr. Jackson, I want to go back to class now.

JACKSON: You stay right here, young man, until I say you can go.

GALLO: (loud with authority) David, do you know Luke Paloma?

DAVID: I don't talk to the FBI! (David moves toward the door. Gallo approaches him, as if stalking him.)

GALLO: You got guns in your house, David? Have you seen any guns?

DAVID: (voice shaking) I'm going, Mr. Jackson. I'm not staying here. I'm not talking to him.

JACKSON: You're staying here, David!

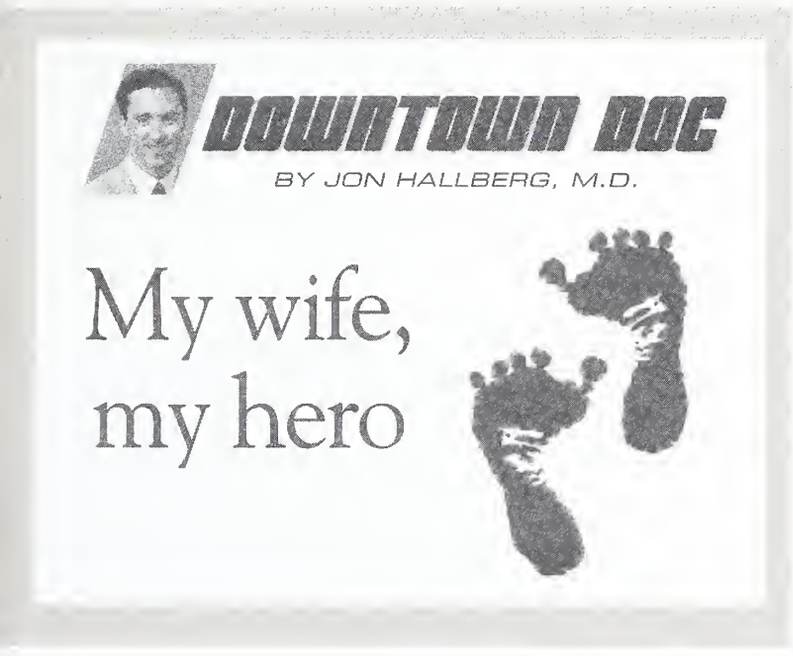
GALLO: What's going on up at Taliesin, David? Tell me now and I'll leave your mother alone!

DAVID: You show your face to my mother, Mr. Gallo, and she'll eat you alive! (David pulls open the door and dashes out. The door slams. Gallo breathes heavily. Jackson mops his forehead.)

JACKSON: I'm very sorry. I'm really very sorry. I never would expect that from any of my students.

GALLO: He's well-trained. Little bastard.

*Jon Hallberg, M.D., family practitioner, Fairview Nicollet Mall Clinic, Minneapolis*
*Medical degree from the University of Minnesota Medical School*
*Columnist for* Minnesota Medicine *and* Skyway News




The bubonic plague led Jon Hallberg, M.D., to writing. Actually, he was asked by *Minnesota Medicine* to write a column based on a lecture series he had presented on infectious diseases. The bubonic plague was the topic of his first column, which he claims was "not one of my best." But, he kept writing and improving and recently won an award for his "Medicine & the Arts" column that appears periodically in *Minnesota Medicine.* He also expanded his writing career and currently writes a weekly column called "Downtown Doc" for the *Skyway News,* a Minneapolis weekly with a circulation of more than 40,000.

Hallberg, who has been practicing medicine for the past five years, enjoys writing. "I'm a reflective person, and in my day-to-day medical practice I don't get time to sit down and ruminate about how I'm going to do this or say that. Writing allows me that outlet." As a columnist, Hallberg enjoys the luxury of choosing most of his topics, and his writing is based upon his own experiences. "As physicians, we see people at their most joyful and most desperate," he says. "Very few jobs allow such closeness to the human experience, and many of us want to share it. I think that's why so many doctors are writers."

Juggling his writing and his daily practice is not always easy. "I do all my writing at night or in the morning," says Hallberg, "and I'm always pushing the limits. My editors will tell you, I'm continually asking for extensions." Still, Hallberg someday hopes to have an article published in a national magazine and perhaps work on an anthology.

## Excerpt from 'Downtown Doc,' *Skyway News,* 1999

... Our daughter was born, a little overdue, on August 9th. Throughout the pregnancy, I was asked repeatedly if it was hard being a dad and a doctor. My answer has always been that it was easy. I have no difficulty separating the two roles. Of course, I'm aware of all the things that could, and occasionally do, go wrong, but I am also aware of the limits of technology, of the futility of excessive worry, of the toll that worry can take on caregivers. I also think it has a lot to do with the trust I have in my hospital and in my colleagues who provide such great care. And the real answer may be this. It is my wife who had the difficult job, not me. It is she who had to live with nausea and swelling and an ever-changing body. It is she who carried within her, for just over nine months, our new life. It was much more important for me to give foot massages and back rubs and a receptive ear than to speculate and hypothesize and worry. It was, in short, important that I be a dad, not a doctor.

Perhaps it was because of those reasons that she chose, just over five years ago, to seek her prenatal and delivery care from midwives with our first pregnancy. I supported and encouraged her in this decision, for I have been fond of midwives for years. When I was in my obstetrics rotation in med school, I participated in my first delivery with a midwife. And it was a midwife who taught me how to do a pelvic exam so as to minimize discomfort. Our first experience with our son had been great. With this pregnancy there wasn't a moment's hesitation. We returned to the same group.

When people hear the word "midwife," they often picture a home delivery with no use of technology, an image straight from the 19th century. A midwife delivery can be that, certainly, but that is the exception, not the rule. Certified nurse midwives are prenatal and birthing specialists with advanced training. Our midwife group, like most in the Twin Cities, is part of a group of obstetrician/gynecologists, so consultation and emergency backup is moments away. In addition, the majority of midwife deliveries are in hospitals, not homes. One of the truly great advantages of using midwives is that they spend time, both in the clinic and in the hospital, that most family physicians and obstetricians would envy.

This advantage was illustrated again for us when my wife went into labor with this pregnancy. By sheer coincidence, we got the same midwife this time as we did with our son. When we got to the hospital, my wife was contracting regularly and was about five centimeters dilated, about halfway there. We talked with the midwife and our nurse as to what our birth plan might be. We responded, only half-jokingly, "Get the baby out." Over the course of the next four hours, my wife and I spent much of it in silent communication, for I know her well enough now to understand what she needs. Our midwife offered suggestions at critical points. In the end, my wife delivered a 10-pound baby, without an epidural, without drugs, without an epesiotomy or even a tear. It was simply amazing. And beautiful. For us, it was a perfect birth experience. Was there pain? Absolutely. Lots. But my wife felt she had a task to perform, and with the wisdom and coaching skills and moral support of a nurse, a midwife, and a husband, she got the job done.

So when we pop open the champagne in the next few days, I will raise my glass to Mary Jane, our midwife, Greta, our beautiful baby girl, and to Diane, my wife, my hero.

*Monica Myklebust, M.D., family practitioner*
*North Memorial's Northeast Medical Clinic, Minneapolis*
*Medical degree from the University of Minnesota Medical School*
*Poet whose work has appeared in* Minnesota Medicine

"Realizing the paucity of opportunity while living in mainland China ... I committed to actualizing my potential," writes Monica Myklebust, M.D., who spent a year in China teaching English to Chinese physicians and was inspired to pursue a medical career for herself. "Thus began my journey of medical education," she says.

Her interest in writing was sparked by a premed course in composition. "I found poetry to be a creative and valuable way to process my impressions of living in another culture." It set the stage for continued processing of life experiences through the written word.

After a residency at Mayo Graduate School of Medicine, Myklebust began her practice at North Memorial's Northeast Medical Clinic. "My experiences as a physician are first human interactions. In the setting of illness and often sadness these are intimate, complex relationships. I consider myself privileged to be involved with people at each stage of their lives. Writing is a means to attempt to put into words this amalgam of emotion and energy."

Myklebust's poem "Annie" is just that. "Annie was just such a complex person. Although I knew her for a short, few years, she demanded an attempt at interpretation."

## Excerpt from 'Annie'

*Anxiety*
*nerves!*
*can't sleep*
*can't settle down*

*the first time I met Annie she was eighty-five,*
*wearing a bad wig, very, very thin*
*her hands were cool as I reached for them*
*covered with blue veins winding across thin*
*transparent skin*

*"when I was twenty I had a very close friend*
*who was depressed,*
*she was taking medicine given by a doctor ...*
*I told her, don't ever drink alcohol with those*
*pills ...*
*the next week she was dead of an overdose of*
*pills and alcohol,*
*I never forgave myself."*

*Annie had been a caretaker*
*cared for her parents, her husband, children in the neighborhood*
*now she was frail, anxious, nasty at times*

*for years she had "cried wolf"*
*seeking attention by exaggerating her physical wounds*
*voicing her unhappiness*
*lacking the insight or courage to confront her demons*
*once in a while the game would let up*
*you could catch a glimpse of her smiling gently*
*admiring the beauty of a flower*

*when she moved to the nursing home she became even more unhappy*
*intellectually she was superior to most who lived there*
*it made her ill to watch others struggle to get the food into their mouths*
*she couldn't eat.*
*Maybe ... she could eat ... some ... ice cream*
*the aides fetch it for her*
*maybe not, guess I'm not hungry*
*I guess I'll just die*
*I hope I don't starve to death*
*I can't swallow you know*
*sad big eyes welling up with self-pity*

*In her last days, life was not pretty*
*pneumonia? malignancy?*
*pain*
*physical pain*
*suffering*

*erupting from deep inside emotional caves*
*oozing out as phlegm*
*sucking away her breath*
*she had immersed herself in a pool of negativity*
*convinced her body*
*the fight was not worth it any longer*

*then enter modern medicine*
*tachycardia, shortness of breath, sepsis*
*what can we do to save her?*
*the cash register clings and clangs as*
*the blind race to save "a life" is on*

*letting go*
*is not a medical term*

*I grieve*
*it hurts*
*to know the emotional pain that has haunted someone for years*
*to consider the loss of independence*
*to contemplate the complexity that is life:*
*unfair disadvantage*
*unrecognized opportunity*
*lack of investment in one's own happiness*
*unexpressed joy, exhilaration, fear to realize the final path has been chosen*
*no more opportunity, no more joy, no more fear*

*it is easier to focus on the physical pain of the moment*
*tangible "real" pain*
*measurable disease*

*soon there will be memories*



ILLUSTRATION BY KRISTINA SWARNER

# A NOVEL SPECIALTY

By Sarah A. Klein

*For some physicians, writing fiction is merely a hobby. For others, it's a second career.*

Does a doctor have the same insight into the human soul as a writer? Does his or her proximity to the processes of birth and death give rise to literature?

The success of a recent Harvard Medical School graduate and an infectious disease specialist might suggest so. Ethan Canin, M.D., and Abraham Verghese, M.D., have become literary luminaries while in school or practice.

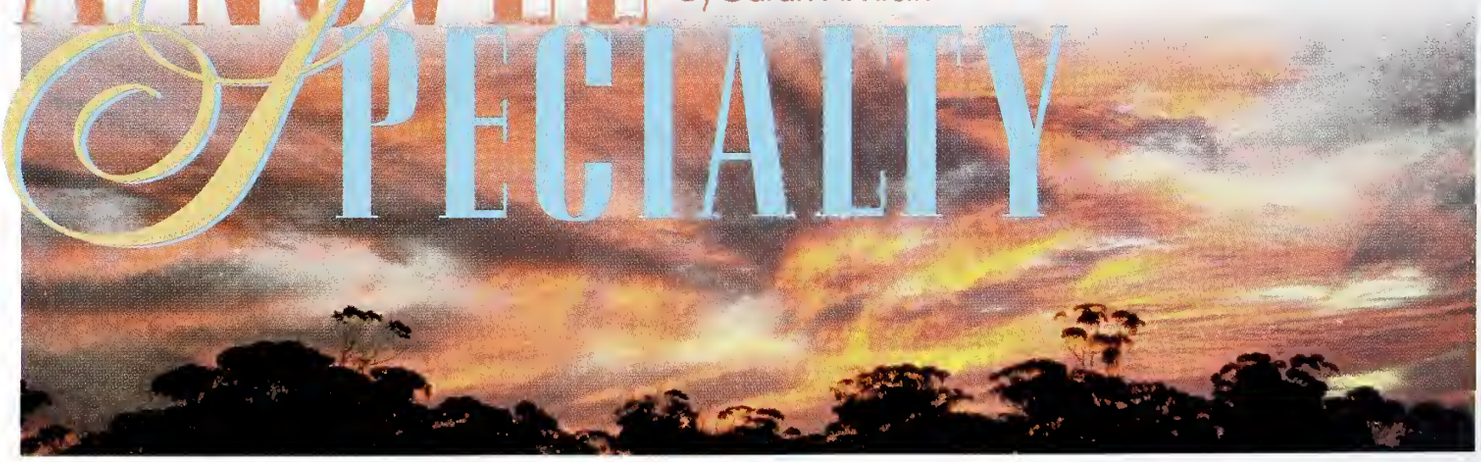
The two, like W. Somerset Maugham, Sir Arthur Conan Doyle, and Anton Chekhov— and more recently Robin Cook, M.D., Michael Crichton, M.D., and Oliver Sacks, M.D.,—have found drama in and outside of medical training. Doyle's most famous creation, Sherlock Holmes, was himself named after and modeled on two other physicians—one a medical school professor, the other Oliver Wendell Holmes.

While many physicians have become writers, few have done so while maintaining their medical practices. Robin Cook, an ophthalmologist and author of more than a dozen thrillers set in the medical world, is technically on leave from the Massachusetts Eye and Ear Infirmary. Michael Crichton, who wrote a series of best-sellers before he created the TV series "ER," abandoned medicine shortly after he graduated from Harvard Medical School, saying he "tended to faint when [he] saw accident victims in the emergency ward, during surgery, or while drawing blood."

But some physicians-turned-writers have managed to do both. William Carlos Williams practiced medicine his entire life, jotting down lines of poetry on prescription pads. And Verghese, whose first book, "My Own Country: A Doctor's Story of a Town and Its People in the Age of AIDS," (Simon and Schuster, 1994) recounted his relationships with AIDS patients in rural Tennessee, writes at night and in the months he has fewer attending responsibilities at Texas Tech University in El Paso.

"I am really juggling the two [careers] simultaneously. But in a way I can't imagine doing it any other way. Especially with my first book, I had this acute sense that the energy for the writing was coming from the fact that I was working and living that experience while I was writing it."

The same is true today, as he works on a novel he hopes will convey the romance of medicine. At the same time he works on



such diverse nonfiction as pieces on the Ethiopian civil war and bypass surgery for *Talk* magazine.

Verghese was five years into his practice when he decided to pursue fiction, taking a sabbatical to study for a master of fine arts degree at the University of Iowa. But he says he was out of his element at the prestigious Iowa Writers Workshop.

"In the first workshop, people were using words like deconstruction and [literary critic Roland] Barthes. I had no idea what the hell they were talking about. I would go to the library every week and check out 12 to 15 books," he says.

"It took me a whole semester to realize that although that stuff was important, it didn't correlate directly with the quality of the writing. The one advantage I had was the tremendous privilege of working in medicine and being privy to the most intimate details about people's lives."

Verghese parlayed that experience into two books. The first, "My Own Country," was named one of the five best books of 1994 by *Time* magazine. His second book, "The Tennis Partner," described by one critic as a paean to the healing powers of tennis and a meditation on friendship, fatherhood, love, addiction, and the particular loneliness of physicians, also won critical acclaim.

## Medicine as a Fallback Career

For Canin, the route to literary success went the opposite direction. Canin decided to go to medical school only after he attended the Iowa Writers Workshop and became convinced he couldn't make it as a writer: "I'd published two stories, and though I did get paid for one, it was hardly a living wage," Canin says.

Instead, he went to Harvard Medical school and, while there, wrote and published "Emperor of the Air," a collection of short stories. While the book remained on *The New York Times* best-seller list, Canin stayed in school, going on to a residency at the University of California at San Francisco, where he continued writing. Ultimately, he decided to pursue a full-time writing career, reasoning he wouldn't take writing seriously unless he was earning his living from it.

"If I didn't need the money from writing, I'd never finish a book. I'd probably write, but I'd never go through the agony of actually completing a manuscript."

Still, his medical school training wasn't wasted. "I think I was made much more serious by my time in medicine. The stakes are high. People's lives are changing in front of you. I think that seeing this daily has made me a more serious writer—that is, one with aspirations toward more serious themes—than I might have been," Canin says.

Unlike Verghese and the vast majority of physicians-turned-writers, Canin has stayed away from what he's learned in school and steered away from medical themes, focusing instead on relationships and the tensions inherent in them.

"If I write about what I know, I can no longer imagine anything. Actual experience is far more powerful than invention, at least in my mind. It's like trying to sing your own tune with a better singer singing something else next to you."

## Professions Parallel in Many Ways

Verghese has a harder time separating the two careers. He says he needs both. "Fiction allows you to defeat the very things that defeat you in your day-to-day life. I cannot turn back time, I cannot reverse my patient's CD4 count, I cannot make the virus go away. But by the vehicle of fiction I can do all of those things."

Verghese also sees little difference between the two disciplines. "To be a good internist, you have to take a good history. [You have to] milk the body for clues. I heard the same aphorism both in medical school and the Iowa Writers Workshop, which is, 'God is in the details.' "

Canin sees fewer parallels between writers and doctors, saying only a few he's met seem to have the same sensibilities.

"I've known quite a number of writers who live off the grid, drink a bottle of Jack Daniels daily, fight in bars, and work one month out of every two years. Doctors only dream of this."

Verghese, who doesn't fit that profile, does nonetheless share some sensibilities with writers, he says.

"I think Verghese probably enjoys both [medicine and writing because] he seems like a humanist, drawn to both endeavors out of his kindness, perhaps, and his interest in the oddity of life. For me, though, the two fields are very different.

"I'd say medicine is like a cross between anxiety disorder, obsessive-compulsive disorder, and dysthymia; writing is definitely bipolar disease."

Both physician-writers say other physicians who aspire to be writers seek them out.

"I get manuscripts and letters from time to time from other physicians who I think suspect that the main ingredient for a good book is a clever idea or an interesting life experience. I think the real art is translating that to the page and making it readable and interesting. That is a special skill that you can only develop by practice," Verghese says.

To those who want to make the effort, he recommends: "Just do it, don't talk about it. Read widely and take great pains with the craft. A good idea alone is simply not enough."

Canin says his advice for physicians depends on why they want to write. "If they find it pleasurable, I would give no advice. Just go ahead and do it. If they are ambitious with it, I'd suggest taking a couple of weeks one summer and going to a writers conference somewhere. Mingle with other writers. Get involved with people with the same ambitions. And I'd always advise taking risks." **MM**

*Reprinted with permission from "A Novel Specialty."* American Medical News *September 27, 1999:7-8.*
*Copyright American Medical Association.*

# For complete healthcare Internet services, there's just one name to remember




THE INTERNET RESOURCE DESIGNED EXCLUSIVELY FOR HEALTHCARE PROFESSIONALS

**A total online service featuring healthcare resources, helpful links and professional services**

In your business, quick access to information is critical. The MMIC Medical Services Portal is a medical provider's best choice for complete online services, providing physician practices with the tools and technology needed to remain strong and competitive in today's rapidly changing marketplace. MMICmedportal provides you with online business tools, technology and information system solutions as well as clinical and practice management resources, local news and weather plus a nationwide physician directory. Whether you need to search for possible side effects of the latest FDA approved drug, obtain reference material on a rare congenital condition or contact a medical colleague from across the nation, you can count on MMICmedportal.

**Save time and improve your efficiency**

Chances are you already rely on the Internet at home. Why not make the Internet a part of your office as well? Brought to you by Midwest Medical Insurance Company, MMICmedportal was designed by medical professionals for medical professionals...your assurance of reliable information you'll find at your fingertips.

***To learn more about how MMICmedportal can work for you, call 1-800-328-5532 or visit us at www.mmicmedportal.com***

The MMICmedportal is a service of the Midwest Medical Group of Companies

MMIC™ medportal

*Progressive Internet Services for Healthcare Professionals*

## ANNOUNCEMENTS



### Attend MMA Cultural Competence Seminars

To assist Minnesota physicians in serving an increasingly diverse population, the MMA is offering training on issues related to culture and the practice of medicine.

The first of two sessions, "Culturally Appropriate Health Care National Standards," will be held October 19 in Rochester and October 26 in the Twin Cities.

For more information, or to register, call Vicki Westling at 612/362-3764.

### Are Toxics Affecting Child Development?

Author Dr. Ted Schettler will discuss the potential link between exposure to toxic chemicals and developmental, learning, and behavioral disabilities in children.

This event will be held October 11 at the Town and Country Club in St. Paul. For details and to preregister, call the Minnesota Center for Environmental Advocacy at 651/223-5969.

# House of Delegates Sets MMA Course for Next Year

Delegates to the Minnesota Medical Association's 147th Annual Meeting gathered at the Duluth Entertainment and Convention Center from September 13 to 15 to vote on nearly 50 resolutions and 40 reports. The delegates' actions set policy that will guide the MMA in the coming year.

Several resolution topics received media coverage, including overuse of antimicrobial products, treatment and coverage for obesity, and cellular phone use while driving.

Reference committees heard testimony and discussed many resolutions at length before making recommendations to the full House of Delegates. The House passed 37 resolutions and referred four resolutions to the MMA Board of Trustees for further study.

### Sick Tax Repeal

The MMA will continue to make elimination of the 2 percent sick tax a legislative priority. The House of Delegates vote to adopt Resolution 203 follows an encouraging announcement by House Republicans in September.

House Speaker Steve Sviggum (R-Kenyon) says seeking repeal of the sick tax and other Minnesota health care provider and health insurance premium taxes will be among their top priorities in the upcoming legislative session.

A new House Republican proposal will closely resemble HF 2716, a bill introduced last session by Rep. Fran Bradley (R-Rochester), which would have replaced the provider tax with the state's tobacco settlement on a contingency basis. The proposal received almost unanimous bipartisan support in the House of Representatives, but failed to receive support from the governor's office or the Senate DFL leadership.

### Antibiotic Resistance Education

Recognizing the growing danger presented by bacterial resistance to drugs, the House of Delegates passed Resolution 314, directing the MMA to help educate the public about this issue.

The MMA will work with other interested organizations to obtain funding—possibly through a legislative initiative—to develop and implement a statewide public education campaign on appropriate use of antibiotics and the potential dangers of antibiotic resistance.

The MMA Antimicrobial Prescribing Practices Task Force, created in response to a 1997 resolution, continues to study antibiotic prescribing practices in the state.

### Prescription Drug Pricing and Accessibility

Resolutions 204 and 205, passed by the House of Delegates, deal with pricing of prescription drugs and seniors' access to prescribed medications.

Resolution 204 calls on the MMA to urge Minnesota's congressional delegation to continue investigating the pricing structure of the pharmaceutical industry. A report by the U.S. House of Representatives found that senior citizens in Minnesota's Sixth Congressional District pay significantly more for

*HOUSE cont. on page 34*

*House cont. from page 33*

some prescription drugs than they would pay in Canada and Mexico.

This resolution also directs the MMA to ask the AMA to develop a plan for equitable pharmaceutical pricing for all Americans and to initiate legislation on this issue.

Resolution 205 calls on the MMA to promote the Minnesota Prescription Drug Program and to ensure it gives qualified Minnesotans access to prescription drugs at an affordable price. The MMA will also monitor the Department of Human Services' annual report to the Legislature to determine if further improvements to the program are necessary.

### Obesity

By passing Resolution 307, the House of Delegates called upon the MMA to recognize obesity as a major endemic health problem and endorse related AMA policy on the issue.

The MMA will work with interested parties on an education campaign to create awareness of modifiable causes of obesity, obesity complications, and effective treatment.

Obesity is a risk factor for depression, sleep apnea, dyslipidemia, atherosclerosis, diabetes mellitus, degenerative arthritis, and other diseases. Obesity and related diseases are associated with billions of dollars in annual health care costs nationwide.

### Driver Inattention

Three resolutions to the House of Delegates addressed the practice of driving while talking on a cellular phone. The House adopted Substitute Resolution 311, which focuses on the more general problem of driver inattention.

The MMA will educate physicians about the dangers of driver inattention due to factors such as sleepy driving, use of car radios, compact-disc players, global-positioning devices, and driving while taking certain medications.

### Pain Relief Promotion Act

Opposing provisions of the Pain Relief Promotion Act (H.R. 2260), the House of Delegates adopted Resolution 412.

The MMA supports language in H.R. 2260 that promotes increased funding for research and education in the area of palliative care, but opposes the insertion of federal government into the practice of medicine and decisions about pain management and palliative care.

The MMA will convey its positions on H.R. 2260 to Minnesota's congressional delegation and urge members to oppose the legislation.

If H.R. 2260 is pending at the deadline for submission of AMA House of Delegates resolutions, the MMA will ask the AMA to oppose H.R. 2260, which it currently supports.

### Mental Health and Chemical Dependency Benefits

The House of Delegates adopted Resolution 300, establishing that the MMA opposes segregating coverage for psychiatric and chemical dependency treatment from general medical care.

The MMA will develop and conduct an educational program to promote the advantages of integrating coverage for medical, surgical, psychiatric, and chemical dependency services in clinical settings.

*HOUSE cont. on page 37*

## New MMA Leaders Elected at Annual Meeting

Blanton Bessinger, M.D., was inaugurated as president of the Minnesota Medical Association at the MMA's 147th Annual Meeting.

The MMA House of Delegates elected the following officers and members of the Minnesota delegation to the American Medical Association House of Delegates:

### MMA Officers

President-Elect
Peter Amadio, M.D.

Vice President
David D. Luehr, M.D.

Secretary
David L. Estrin, M.D.

Treasurer
Michael Ainslie, M.D.

Speaker, House of Delegates
Gary Hanovich, M.D.

Vice Speaker of the House
Rebecca J. Hafner, M.D.

### AMA Delegates

Audrey M. Nelson, M.D.,
Carolyn J. McKay, M.D.
Frank J. Indihar, M.D.

### AMA Alternate Delegates

Anthony C. Jaspers, M.D.
John Van Etta, M.D.
Kenneth W. Crabb, M.D.
Raymond G. Christensen, M.D.

# Drs. Christensen, Sanders Receive MMA Distinguished Service Awards

The Minnesota Medical Association honored significant achievements by MMA physicians and others at events held during the association's 147th Annual Meeting.

Raymond Christensen, M.D., of Moose Lake and Paul Sanders, M.D., MMA CEO, received MMA Distinguished Service Awards for their years of leadership and service in the MMA, and for their outstanding contributions to organized medicine. The award is the highest honor given by the MMA.

Christensen, a family physician, in Moose Lake, has practiced medicine since 1972. He plays an active role in rural health care policy and is politically involved in both national and local rural health care causes.

Christensen is past president of the MMA and an alternate delegate to the American Medical Association House of Delegates. He also served as a member of the MMA Committee on Administration and Finance, the MMA Medicaid Reimbursement Task Force, and as chair of various reference committees for the MMA House of Delegates. He has represented the MMA on the former Rural Health Task Force, the Minnesota Clinical Comparison and Assessment Project, and the Minnesota Center for Rural Health.

Sanders, MMA CEO since 1990, is the first physician to lead the MMA and is one of the nation's first physician CEOs of a state medical society. He is a practicing family physician who still sees patients one day at week at the Cambridge Clinic.

A strong advocate for organized medicine, Sanders' firsthand understanding of how policies affect practicing physicians gives him particular credibility. He influences health care policy while keeping the focus of debates on patients' welfare and the medical profession.

For a complete list of award recipients, visit the MMA Web site at www.mnmed.org.

# MMA, Other Groups Hold Conference on Kids, Guns, and Media Violence

The Minnesota Medical Association and nearly two dozen cosponsors hosted the conference "Kids, Guns, and Media Violence. Crisis? Conflict? Consensus?" on September 8 at the Earle Brown Heritage Center in Brooklyn Center.

The conference included presentations by Elissa P. Benedek, M.D., a forensic psychiatrist and past president of the American Psychiatric Association; David Walsh, Ph.D., founder of the National Institute for Media and the family; and Sergeant Jeff Rugel, an investigator with the Minnesota Gang Strike Force.

Benedek described interviews she had conducted with children from different backgrounds who have committed violent crimes, including homicide.

Juvenile homicide can be linked to biological, psychological, and social factors, she says. Examples of these might include a defect in one's frontal lobe or neurotransmitters, psychological reactions such as identification with the aggressor, or exposure to violence through real-life experiences or through the media.

Some generalizations are possible, however. "Early childhood aggression is cause for concern. Bullies and the bullied can present problems later in life," says Benedek.

In his presentation, Walsh discussed the influence of media on behavior, including the role of emotion in the workings of the mind.

Because the primary goal of the media—particularly television—is to draw viewers to advertising, it is necessary to overcome hindrances such as desensitization, competition, and use of the remote control. This is accomplished by increasing the "jolts per show," according to Walsh. Jolts are delivered through violence, sex, humor, or a combination thereof.

Emotions, including those produced by violent images, hold attention and determine what one remembers, according to Walsh. Emotions influence attitude, motivation, and behavior as well.

"The most pervasive impact of the steady diet of violent images is the creation and nurturing of a culture of disrespect," says Walsh.

*KIDS, GUNS cont. on p. 36*

# New HIPAA Rule to Streamline Claims Processing

The Department of Health and Human Services (HHS) has published the final rule on standard formats—under authority of the Health Insurance Portability and Accountability Act of 1996 (HIPAA)—to streamline health care claims processing. Providers conducting electronic transactions must follow the standards.

HIPAA requires that the secretary of HHS adopt standards for financial and administrative transactions and adopt data elements for those transactions so that health information may be exchanged electronically. Among the standards are code sets for every data element in each health care transaction.

HHS selected Current Procedure Terminology (CPT) as the standard code set for reporting health care services in electronic transactions. CPT is the most widely accepted listing of descriptive terms and identifying codes for reporting medical services under public and private health insurance programs.

The final rule names CPT codes and modifiers and the Health Care Financing Administration Common Procedural Coding System as the procedure code sets for physician services, physical and occupational therapy services, radiological procedures, clinical laboratory tests and other medical diagnostic procedures, hearing and vision services, and transportation services, including ambulances. The American Medical Association, which initiated a project to promote CPT as the national standard procedure code for physician services, is pleased with the selection of this code set.

This final rule underscores HHS's decision to eliminate local codes and adopt nationally standardized codes to facilitate data collection and decrease the number of codes used for payment purposes.

HIPAA directed HHS to enact privacy protections for electronic data after Congress missed its August 1999 deadline to do so. HHS will issue further regulation under HIPAA authority later this year.

*Kids, Guns cont. from page 35*

A common reaction to incidents involving kids and guns is ask where the child got a gun, says Rugel.

It is generally illegal in Minnesota for juveniles to purchase handguns or military-style assault weapons—the types of guns most frequently used in violent crimes. But there are a number of means by which kids may obtain them.

One common way is through a "straw man" purchase, in which an adult buys a handgun from a dealer and sells it to a minor or another individual who cannot legally possess it. Juveniles may also have access to "street" guns, which include stolen guns and those obtained through straw man purchases. These guns circulate on the black market, routinely passing from person to person, and may be used in numerous crimes.

"The truth is almost any juvenile who wants a gun can find one," says Rugel.

Following the presentation, a panel of experts, moderated by U.S. Attorney Todd Jones, took questions and comments from the audience. In addition to the three presenters, panel members included Hennepin County Attorney Amy Klobuchar, Minnesota Citizens Council on Crime and Justice Director Cheryl Heilman, and Renee Wixon, an independent consultant in public health.

An audience of health care professionals, educators, policy makers, criminal justice professional, religious leaders, public health professionals, parents, and other interested parties asked panelists questions on a range of topics related to the conference theme.

A juvenile audience member described some of his experiences with growing up in a violent home and later committing violent acts and other crimes for which he was sentenced to a juvenile correctional facility.

He talked about feeling overlooked and isolated when he was growing up. "When you don't feel accepted by society, you don't see much need to follow society's rules," he says.

In the last portion of the conference, audience members formed solution groups, based on their areas of interest, and discussed what they could do to address problems stemming from the role that guns and media violence play in the lives of children. The group comprising health care professionals agreed that gun violence is a health care issue and proposed steps that they could take to assist at-risk youth, including forming a network of interest agencies.

Suggestions by other groups included creating mentoring and after school programs, studying consumer demand for media violence, and helping adults to be better caretakers. A full report on the solution groups' proposals will be published this fall.

# 2000 MMA House of Delegates Resolution Summary

The Minnesota Medical Association House of Delegates took action on the following resolutions at the 147th MMA Annual Meeting, held September 13 through 15 in Duluth.

**100, Amendments to the MMA Bylaws**

Adopted

The MMA will adopt amendments to clarify language to the MMA Bylaws.

**101, Employer Compensation to Physicians for Time to Acquire CME**

Adopted as amended

The MMA endorses the concept that all physicians be allowed adequate time and payment to acquire required CME and will provide information to physicians detailing policies for reimbursement and deductibility of CME within Minnesota and throughout the United States. The MMA will develop a report that describes current methods to fully deduct the cost of required CME and assess the need for changing current tax laws to ensure full deductibility of required CME.

**102, Citizen Input**

Adopted in lieu of Res.102 and Res.103

The MMA Board of Trustees will assess and implement various methods of obtaining citizen/community input in the development and implementation of MMA policy and programs.

**104, Conflict-of-Interest Policy**

Not adopted

Resolved that the MMA Board of Trustees develop a conflict-of-interest policy on members' competing professional/financial interests and their roles and responsibilities as voting members of MMA committees to be presented to the MMA House of Delegates for discussion and approval in 2001.

**105, MMA Dues and 2001 MMA Budget**

Adopted

The MMA will maintain 2001 membership dues at the 2000 level. The proposed 2001 MMA Operations Budget and the proposed 2001 MMA Capital Budget were approved.

**200, LPN Scope of Practice**

Adopted as amended

The MMA will draft legislation amending the Pharmacy Act to allow physicians to direct a licensed practical nurse (LPN) to administer legend drugs under practice guidelines or protocols. The MMA will work with appropriate nursing and other organizations to develop guidelines for the supervision of LPNs by registered nurses or physicians that will support the provision of quality patient care.

**201, Opposition to State Preemption of Local Ordinances Regulating Tobacco**

Adopted as amended

The MMA will oppose attempts to adopt state law that preempts local ordinances restricting the sale and use of tobacco.

**202, Opposition to State Preemption of Local Ordinances Regulating Firearms**

Referred to the MMA BOT

Resolves that the MMA will seek to change current Minnesota law that preempts local ordinances regulating sale and use of firearms.

**203, Repeal of the Provider Tax**

Adopted

The MMA will continue to endorse and lobby for repeal of the provider tax, giving this high priority at the next legislative session.

**204, Study of the Pricing of Prescription Drugs**

Adopted as amended

The MMA will urge the Minnesota congressional delegation to continue investigating the pricing structure of the pharmaceutical industry. The MMA will ask the AMA to develop a plan for equita-

*SUMMARY cont. on page 38*

*House cont. from page 34*

Building on existing AMA policy on the issue, the MMA will ask the AMA to work to ensure that benefits for mental health are managed and administered like other health care services.

Other resolutions ask the MMA to support educational activities and funding for Minnesota's academic medical centers, endorse efforts to eliminate secondhand smoke in the state's bars and restaurants, and report on tax deduction methods for the cost of continuing medical education.

The proceedings of the MMA House of Delegates are on the MMA Web site at www.mnmed.org.

ble pricing of pharmaceuticals for all Americans and to develop legislation to promote this plan.

### 205, Study of Minnesota Prescription Drug Program

**Adopted as amended**

The MMA will promote the Prescription Drug Program (formerly the Senior Drug Program) to ensure it meets the needs of qualified Minnesotans for access to prescription drugs at an affordable price. The MMA will monitor the Department of Human Services' annual report to the Legislature to determine if improvements to the program are necessary.

### 206, Osteoporosis and Densitometry

**Adopted as amended**

MMA establishes policy recognizing osteoporosis as a major health problem in our state. The MMA will pursue avenues to create awareness of osteoporosis and restrict clinical densitometry practice to appropriately trained physicians, thereby improving the level of care for these patients. The MMA adopts AMA policy H-425.981 as MMA policy.

### 207, Support the Funding Base of the University of Minnesota Medical School

Adopted as amended

The MMA will strongly support the state of Minnesota's initiatives and advocacy for all of its academic medical centers' educational activities. The MMA will support and participate in the University of Minnesota Medical School's 2000–2001 efforts to receive an expanded and secure funding base.

### 208, Disease-Specific Research Initiatives

Adopted as amended

The MMA will support increased funding to provide a stable base for medical education and research. The MMA will support unrestricted funding of research, rather than directing funding to disease-specific research initiatives that have not been subject to scientific peer review. The MMA will work with the Minnesota Department of Health and the Medical Education Research Advisory Committee to create a state policy to use scientific peer review for any legislative decision to fund research initiatives.

### 209, Coordination of Clinic Surveys and Chart Audits

Adopted as amended

The MMA will work with health plans, the MDH, and appropriate accrediting agencies to find a mechanism to reduce the intrusion and cost of duplicative surveys and audits.

### 210, Smoke-Free Restaurants and Bars

Adopted as amended

The MMA endorses elimination of secondhand smoke in all restaurants and bars in Minnesota by supporting passage of local, county, and state ordinances prohibiting smoking in restaurants and bars.

### 300, Opposing the Carveout of Mental Health and Chemical Dependency Benefits

Adopted as amended

The MMA opposes the carving out of psychiatric and chemical dependency treatment from general medical care in health insurance and managed care programs. The MMA will develop and conduct an educational program aimed at patients, employers, and other interested parties to promote the advantages of health care insurance policies that integrate medical, surgical, psychiatric, and chemical dependency services in any clinical setting. The MMA will ask the AMA to work to eliminate mental heath and chemical dependency carveouts so benefits for mental health are managed and administered like other health care services.

### 301, Mercury

Adopted as amended

The MMA recommends environmentally proper disposal of mercury-containing medical equipment and replacement of mercury-containing equipment. The MMA will ask the AMA to recommend proper disposal of mercury-containing equipment.

### 302, Reimbursement for Processing Formulary Changes

Adopted as amended

The MMA will work with health plans to reduce the administrative burdens associated with prescription changes as the result of health plan formulary changes, as well to reduce the burdens associated with appeals for coverage of nonformulary drugs.

### 303, MMA to Cosponsor a Community Conference to Discuss: What Comes After Managed Care?

Not adopted

Resolved that the MMA, in cooperation with other interested parties, produce a conference devoted to discussing and recommending action regarding the next generation of health care delivery and financing systems.

### 304, Improved Reimbursements for Blood Products and Blood Safety

Adopted as amended

The MMA will ask the AMA to advocate for improved reimbursement to hospitals for services related to blood products and blood safety. The MMA will also ask the AMA to advocate for adjustments to the Health Care Financing Ad

mechanism for blood products and blood safety.

### 305, AMA Study of National Health Systems

Not adopted
Resolved that the MMA ask the AMA to study and issue a report on the health care systems of Canada, England, Germany, Norway, and Sweden. It further resolved that the MMA ask that the AMA develop a national health care system model for the United States with features designed to address unique aspects of health care in this country.

### 306, Prohibit Global Risk-Sharing Contracts between Providers and Health Plans

Adopted
The MMA will lobby the state Legislature to change laws that permit physicians to enter into global risk-sharing contracts with health plans for services other than their own. The MMA will ask the AMA to lobby Congress to change laws that permit physicians to enter into global risk-sharing contracts with health plans for services other than their own.

### 307, Obesity Epidemic

Adopted as amended
The MMA recognizes obesity as a major health problem, by endorsing existing AMA policy on obesity (H-150.953 and H-440.902). The MMA will develop a statewide education campaign, in conjunction with interested parties, to create awareness of the modifiable causes of obesity, obesity complications, and effective, sustained treatment.

### 308, Lack of Coverage for Obesity and Related Conditions

Not adopted
Resolved that the MMA introduce legislation to secure adequate reimbursement to physicians for care of patients with obesity and for prescribed medications. It further resolved that the MMA review existing AMA policy regarding coverage for obesity services and either endorse current policy, or introduce policy to secure adequate coverage for the epidemic of obesity.

### 309, Patient Protection in Utilization Review of Psychotherapy Cases

Adopted
The MMA will develop and advocate for state legislation prohibiting utilization review organizations, health plans, or insurance plans from requiring disclosure of psychotherapy case notes as a condition of medical necessity review or insurance reimbursement.

### 310, Plans Pay for Out-of-Network Physicians but Not Always Their Rx

Adopted as amended
The MMA will work with health plans to provide coverage for pharmaceutical prescriptions that are compliant with plan formularies, when written by physicians who are otherwise eligible for health plan reimbursement according to the enrollee's health plan contract.

### 311, Driver Inattention

Adopted in lieu of Res. 312, Res. 313, and Res. 315
The MMA will educate Minnesota physicians and the public about the dangers of driver inattention due to factors including, but not limited to, sleepiness, cellular phone use, electronic devices (e.g., stereo, global positioning systems, televisions), and the use of certain medications.

### 314, Antibiotic Resistance Public Education Campaign

Adopted as amended
The MMA will work with other interested organizations to obtain necessary funding (that may include a legislative initiative) to develop and implement a statewide public education campaign regarding appropriate use of antibiotics and potential dangers of antibiotic resistance.

### 316, Tuberculosis

Adopted as amended
The MMA will work with appropriate parties to research and develop options to secure full public and private health care coverage for testing and complete treatment (e.g., diagnostic testing and treatment, professional services, directly observed therapy [DOT] manager services, pathfinder and interpreter services, etc.) of known and suspected tuberculosis cases, and for evaluation of individuals involved in a tuberculosis contact investigation.

### 400, Continuation of Minnesota Maternal Mortality Studies

Adopted as amended
The MMA will work with the commissioner of health to seek to continue MDH authority to access health records regarding maternal mortality studies. If necessary, the MMA will work with the Department of Health to introduce legislation in this area.

### 401, Prohibition of Intact Dilatation and Extraction and Abortion Procedures

Referred to MMA BOT as amended
Resolves that the MMA endorse AMA policy H-5.982 regarding dilatation and extraction procedures and support the position that this procedure should not be used unless alternative procedures pose materially greater risk to the woman.

### 402, National Practitioner Data Bank Protection

Adopted
The MMA opposes any attempts to

open the National Practitioner Data Bank to public query. The MMA will continue to support the AMA position of opposing any attempt to open the National Practitioner Data Bank to public query.

### 403, Empower Minnesota Physicians to Collectively Negotiate Contracts with Health Plans

Referred to MMA BOT

Resolves that the MMA study legislation that provides state action immunity in states such as Texas. It also calls on the MMA to consider developing legislation that permits Minnesota physicians to collectively negotiate the terms and conditions of contracts with health plans.

### 404, Education of Physicians Regarding Tortured and Traumatized Refugees

Adopted as amended

The MMA will continue to support and develop education programs to enable physicians to assess refugees for the possibility of post-traumatic stress, depression, or medical injury due to torture or war trauma. The MMA will educate physicians to uphold the principles of human rights by assisting, if requested, in the documentation of the physical and psychological effects of torture.

### 405, Use of Anatomical Gifts in Medical Research and Education

Adopted as amended

The MMA will ask the AMA to modify ethical policy E-2.08, sub. 1 to include use of organs or tissues for educational purposes, and that the AMA study current legal safeguards for proper ethical use of human tissue for research and education to determine if they are appropriate and sufficient.

### 406, MMA Support of Long-Term Care

Adopted as amended

The MMA will continue to work with the MDH to transform monitoring of extended care facilities to be less punitive and more targeted toward improving quality of care. The MMA will ask the AMA to lobby the HCFA to adopt a less punitive system that is more oriented to improving care in extended care facilities.

### 407, Methadone Maintenance Treatment

Adopted as amended

The MMA endorses AMA policies H-95.957 and H-95.964 regarding use of methadone maintenance therapy in clinics and in offices of physicians properly trained and administratively monitored.

### 408, Patient Safety

Adopted as amended

The MMA will continue to work with local and national efforts to reduce medical errors and improve patient safety, paying particular attention to methods to identify root causes of errors; data privacy and confidentiality; mechanisms to reduce the culture of blame in the health care industry; and mechanisms for equitable distribution of associated costs.

### 409, Coverage of Experimental/Investigational Studies

Referred to MMA BOT

Resolves that the MMA BOT appoint a task force to address issues of clinical research in Minnesota with particular attention to approval agencies, facility and researcher participation with the participant member managed care organizations, and the mechanism for assignment of expenses. It further resolves that the MMA pursue negotiations with managed care organizations, clinical research groups, governmental agencies, and consumers to develop an organized, systematic approach to clinical studies.

### 410, An Education Initiative for Improving School Performance

Adopted as amended

The MMA commends Zumbro Valley Medical Society for its efforts to study and make recommendations regarding education and school performance. The MMA encourages further collaboration and discussion with stakeholders in this area.

### 411, Immunization Registries

Adopted

The MMA encourages physicians to participate in development of confidential immunization registries in their local communities or regions and use such registries in their practices.

### 412, Opposition to H.R. 2260, the Pain Relief Promotion Act

Adopted as amended

The MMA supports language in H.R. 2260, the Pain Relief Promotion Act, that promotes increased funding for research and education in the area of palliative care, but opposes provisions that insert the federal government into the practice of medicine and decision making about appropriate pain management and palliative care. The MMA will convey its opposition to the Pain Relief Promotion Act or similar legislation to Minnesota's congressional delegation and urge them to oppose the legislation. If H.R. 2260 or similar legislation is pending at the deadline for submission of resolutions to the AMA Interim 2000 meeting, the MMA will ask the AMA to change its position to oppose the pending legislation.

# NEWS DIGEST

*People and places making medical news*



## People & Places

U.S. Surgeon General David Satcher has selected **Gov. Jesse Ventura** to serve on a federal committee that will study racial and ethnic health disparities. The committee will try to develop a plan to address lower life expectancy, higher infant mortality, and higher levels of disability among minority groups. The **American Public Health Association** and the **U.S. Department of Health and Human Services** will supervise the panel.

At a recent ceremony releasing the new Surgeon General's report "Reducing Tobacco Use," **Satcher** recognized **George Isham, M.D.**, medical director and chief health officer at **HealthPartners**, for his efforts in developing programs that use performance measures and incentive programs for physician groups battling tobacco use.

**Harry Hull, M.D.**, has been appointed state epidemiologist for the **Minnesota Department of Health.** Hull comes to Minnesota from the **World Health Organization (WHO)** in Switzerland, where he directed WHO's polio eradication initiative. He previously served as New Mexico's state epidemiologist. Hull is an international expert on polio, measles, and bubonic plague.

The board of directors of the **National Marrow Donor Program** named **Jeffrey W. Chell, M.D.**, its new chief executive officer. Chell was previously at **Allina Health System** in Minneapolis, where he concurrently served as the system vice president for clinical services and president and board chair. The NMDP houses a registry of more than 4 million potential volunteer donors. The registry provides a single point of access to those in need of

⇨



## Public Health

### Mobile Learning Center Will Travel Throughout Minnesota

Thanks to a $135,000 grant from the Minnesota Legislature, **LifeSource**, the federally designated organ donation organization serving the Upper Midwest, will develop a Mobile Learning Center to convey the importance of organ donation to Minnesota communities. The Mobile Learning Center is part of a new education strategy to inform the public about organ donation and how to become a donor. The vehicle, which will contain interactive panels and video displays, will be ready in 2001 for visits to Minnesota schools, businesses, fairs, and other public venues.

### Wider Use of Defibrillators Recommended

The **American Heart Association (AHA)** has recommended placing defibrillators in every ambulance, fire truck, and police car, as well as in public areas where large numbers of people congregate. The recommendation is based upon the fact that the lifesaving shock to the heart that defibrillators deliver is most effective when administered within minutes after a victim suffers a heart attack. Survival rates decrease noticeably after the first 10 minutes following an attack. The AHA has also suggested not taking a victim's pulse because it wastes precious time and because many people don't know the correct method.

marrow or blood stem cell transplants who do not have a family donor match.

**Joanne Disch, R.N., Ph.D.,** has been named to fill the newly created **Katherine R. and C. Walton Lillehei Chair in Nursing Leadership** at the **University of Minnesota School of Nursing.** The chair was endowed by a gift from the Lillehei family in January. Disch will also serve as the first permanent director of the **Katharine J. Densford International Center for Nursing Leadership.**

**The Minnesota Pharmacists Association** has named **Scott Whitmore, R.Ph.,** as its new executive vice president. Whitmore, who succeeds **William Bond, C.A.E.,** served six years as director of professional affairs for the **Pharmacy Society of Wisconsin,** where he oversaw the public- and private-sector implementation of an online pharmaceutical care payment system.

**Bert Stromberg, Ph.D.,** has been named associate dean for research and graduate programs at the **University of Minnesota College of Veterinary Medicine.** Stromberg is a professor in the department of veterinary pathobiology and has been with the college since 1979. He has served as director of graduate studies for the department since 1990 and is the author of more than 60 publications in peer-reviewed journals.

A joint program of the **University of Minnesota School of Public Health** and **Abbott Northwestern Hospital's Virginia Piper Cancer Institute** was one of six national centers selected to participate in the **National Cancer Institute's** Lung Screening Study. The centers will recruit individuals aged 55 to 74 who have a history of long-term or heavy smoking and assign them to receive a spiral CT scan or chest x-ray. The study intends to determine whether early screening with spiral CT saves lives; some studies suggest that screening sometimes detects tumors that never become life-threatening. ■



# Research & Innovations

### Annual PSA Tests Urged after Prostatectomy

According to a study in the August issue of the *Journal of Urology*, men who have had radical prostatectomies should have annual prostate-specific antigen (PSA) tests for the rest of their lives because the cancer recurs in 30 percent of those who undergo the procedure. Researchers at the **Mayo Clinic** found that of 2,700 men who underwent prostatectomies, 819 had elevated PSA levels. The highest risk of recurrence came in the first two years after surgery.

### Rheumatoid Arthritis Linked to Impaired Immune System

**Mayo Clinic** rheumatologist **Cornelia Weyand, M.D.,** has found evidence linking rheumatoid arthritis to an impaired immune system. Rheumatoid arthritis is generally thought to be the result of an overactive immune system. Researchers compared blood samples of healthy patients with those with rheumatoid arthritis and found the latter to have lymphocyte cells bearing evidence of premature aging. They discovered that the patients with rheumatoid arthritis had fewer lymphocyte cells produced by the thymus. Weyand suggests that physicians should focus on developing treatments that would regenerate the patient's impaired immune system. The study is published in the *Proceedings of the National Academy of Sciences*.

### U Describes Policies for Nondirected Kidney Donation

In a recent article published in the *New England Journal of Medicine*, leaders of the **University of Minnesota** nondirected (where neither donor nor recipient know each other) kidney donation program outline the program's policy and practices. Potential donors are screened for medical and psychological health; of the 100 people who initially volunteered, only six have been selected so far, and four kidneys have been transplanted. Officials at **Fairview-University** hospitals, which have transplanted more kidneys than any other center worldwide, spent a year working on a policy that would address ethical and practical issues.

### Early Screening Fails to Prevent Lung Cancer Deaths

In a study published in the *Journal of the National Cancer Institute*, researchers at the **Mayo Clinic** report that early screening for lung cancer does not result in an appreciable decline in the number of deaths. Researchers followed 9,211 male smokers for 20 years and found that frequent chest x-rays did not reduce their risk of dying from lung cancer. They determined that the x-rays uncovered relatively harmless lung cancers and exposed patients to unnecessary biopsies and surgeries that have no long-term effect on survival rates. ■



# Socioeconomics

### State's Medical Assistance HMOs Get Low Marks on Kids' Preventive Care

According to a new study by a Virginia-based company, one-half of all children in Medical Assistance HMOs in Minnesota did not receive primary or preventive care in 1998, and only 6 percent received the full set of preventive care screenings required by law. State officials expected that at least 25 percent of children would be screened. Itasca Medical Care in Itasca Medical County received the best score—16 percent; the plan is not an HMO but serves public assistance clients.

### State's Nursing Home Care Poorer than National Average

A Health Care Financing Administration (HCFA) report suggests the quality of Minnesota's nursing home care lags behind that of other states. The report specifically states that 54 percent of nursing homes do not meet the "proposed minimum standard" of two hours of care a day from nursing aides. Minnesota averages six-tenths of one worker per resident, compared with seven-tenths nationally. Staffing problems were cited as one reason for an increase in bed sores, malnutrition, dehydration, abnormal weight loss, infections, and other preventable health problems. The HCFA report measured violations of its nursing home standards and concluded that Minnesota fared worse than the national average in seven of 10 categories.

### Mayo Clinic to Leave HMO Business

The 8,800-member Mayo Health Plan, which serves 15 southeastern Minnesota counties, will be discontinued by the end of 2001. The HMO turned a small profit during its 15-year history, but lost $1.6 million in 1999 and was predicting another loss for 2000. The increasing cost of prescription drugs and technology, combined with an increase in the number of doctor visits, were cited as reasons for the losses.

### Blue Cross to Buy Hospitals' icanPREVENT Subscriptions

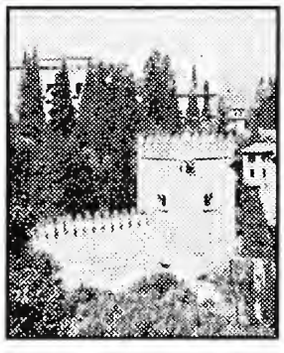
Blue Cross and Blue Shield of Minnesota has agreed to purchase subscriptions to ican Inc.'s Web site, icanPrevent (www.icanprevent.com), and distribute them to physicians and infection-control professionals throughout the state. Available through subscription only, icanPREVENT provides information on infectious diseases and infection control. More than 75 percent of the sponsored subscriptions will go to greater Minnesota clinics and hospitals.

### State's Health Care Premiums Increase 10 to 30 Percent

Health care premiums in Minnesota rose by an average of 11.7 percent last year and are increasing from 10 percent to 30 percent nationwide. At the same time, HMO profitability is up, according to data from InterStudy Publications. In 1999, 47 percent of all HMOs nationwide were profitable, compared with 41 percent in 1998.


**North Central Medical Conference**

Presents Exciting Trips From Minneapolis/St. Paul in Spring 2001



***Romantic Spain***

May - 10 days/8 nights • ***$1,649*** *(approximately)*

***MADRID***. Located in the center of the Iberian Peninsula, Madrid is filled with history, yet a modern, active city offering countless attractions.
***COSTA DEL SOL*** - which rims Málaga, is one of the most important tourist areas in Spain. An opportunity to visit Gibraltar, Morocco and Granada.
***SEVILLE*** - is the Andalusian capital and the fourth largest Spanish city. Bathed by the Guadalquivir River, Seville has a strong identity all its own, while its popular quarters, such as Santa Cruz, are as interesting as its many monuments and old buildings.



***Germany (River boat cruise); Prague, Czech Republic; Vienna, Austria***

April - 9 days/7 nights • ***$1,989*** *(approximately)*

Explore the wonders of ***Germany*** on a three night river boat cruise on the Danube-Main canal. Bavarian medieval towns, historic buildings and cultural treasures line the route. Next discover ***Prague***, the most majestic of cities, where monuments, ancient houses, palaces, churches and gardens await you. Visit ***Vienna***, the capital of Austria and historical metropolis of the Austro-Hungarian Empire. Rich in baroque art and architecture, Vienna is one of the most famed towns in Austria. A visit to Budapest completes this exciting trip.

**AVAILABLE TO MEMBERS, THEIR FAMILIES AND FRIENDS.**

**Prices are per person, double occupancy, plus government taxes.**

***For additional information and a color brochure contact:***

**GLOBAL HOLIDAYS**

8000 West 78th Street, Suite 345, Edina, MN 55439-2538
**(952) 918-8950** Toll Free:**1-800-842-9023** FAX **(952) 918-8975**

# Rates, Trends & Data



### Minnesota's Uninsured at 8 Percent

The Urban Institute in Washington, D.C., reports that almost 8 percent of Minnesota residents younger than 64 do not have health insurance, including one in 20 children. The national uninsured rate is 15 percent. Hispanics are least likely to have health insurance in Minnesota. Twenty percent of Hispanic adults and 15 percent of Hispanic children are uninsured. Children living with one parent are almost three times as likely to be uninsured as those who are living with two parents. Likewise, children in rural areas are twice as likely to be uninsured as those who live in cities.

### Cost of Dental Care Increasing Faster in Minnesota than National Average

The cost of dental care in Minnesota increased by 10 percent in the past year, compared with 7 to 8 percent nationwide, according to Delta Dental Plan of Minnesota. Increases in overhead and operating expenses and higher salaries are blamed for the rising costs. A 1998 survey by the American Dental Association showed that the average net income of general practitioners was $133,430.

### C-Section Rates Rising

After the outcry against cesarean sections in the 1990s, doctors are puzzled by an increase in the number of C-sections, which now account for 22 percent of U.S. births. In Minnesota, however, the number of C-sections dropped from 11,954 in 1990 to 11,214 in 1998, the last year for which data are available, with the percentage of C-sections to live births holding steady from 17.6 percent in 1990 to 17.2 percent in 1998. Other states that have low percentages of C-sections include Wisconsin, Utah, Colorado, Alaska, and Vermont. At least one in four births is performed by C-section in Mississippi, Louisiana, Arkansas, and New Jersey.

### Teen Anti-Smoking Campaigns Showing Promise

The CDC reports that 34.8 percent of high school students in 1999 said they had smoked a cigarette in the previous 30 days. That was down from 36.4 percent in 1997. This represents the first overall decline since 1991, when the government initiated the study. According to a 1998 survey, 41.7 percent of Minnesota high school seniors smoke cigarettes. Figures declined among freshmen, however, from 33.4 percent in 1997 to 27.6 percent in 1999. Anti-smoking campaigns and the high cost of cigarettes are considered the main reasons for the drop.

### Teen Drug Use Declines as Use by Young Adults Grows

National rates of teenage drug use declined for the third year in a row. Nine percent of teens between the ages of 12 and 17 admitted that they had used drugs within a month of responding to a government survey. However, the rate of illicit drug use among 18- to 25-year-olds climbed from 14.7 percent in 1997 to 18.8 percent in 1999.

### U.S. Teenage Pregnancy Rate Lowest in 60 Years

The pregnancy rate for girls aged 15 to 19 in the United States is the lowest in 60 years, with 49.6 births per 1,000 girls, according to the National Center for Health Statistics. The rate has dropped consistently throughout the 1990s, falling 20 percent for the decade. The Minnesota teen birth rate is the fourth lowest in the nation. In 1998, there were 30.6 births for every 1,000 teenage girls between the ages of 15 and 19 in the state, down 18 percent from 1991. Rates have dropped for every racial and ethnic group from 1991 to 1998.

### Medical School Applicants Down for Third Year in a Row

For the third consecutive year, the number of applicants to the nation's 125 medical schools has fallen, in part because of the strong economy as well as the changing medical climate. Last year's freshman class saw a 6 percent decline in the number of applicants. At the University of Minnesota, there was an even larger dip, with applications down 9.6 percent from 1999. The biggest drop in applicants nationally was among men—9.1. percent—while the number of female applicants fell 2 percent.

### Minnesota Has High SIDS Rate

Minnesota has the highest number of deaths caused by sudden infant death syndrome (SIDS) in day-care settings in 11 states studied, according to a recent *Pediatrics* article. (Nationally, 20.4 percent of SIDS deaths occurred in day-care settings; the figure for Minnesota was 40 percent.) Since the 1997 study, the rate of SIDS deaths in Minnesota day-care settings has dropped to 29.9 percent. The high SIDS rate may be attributable to several factors: child care providers who fail to ensure that infants sleep on their backs, the large number of women in Minnesota's work force, and the fact that the state has the highest rate of mothers with children under age 6. ■

**Brainerd Medical Center, P.A.**
**2024 South Sixth Street, Brainerd, MN 56401**
**218-828-7105 • www.brainerdclinic.com**

## PEDIATRIC OPPORTUNITY

A Pediatric opportunity exists at Brainerd Medical Center. Would you like to live in a premiere vacation area in a community that will meet any family need?

If so, the Brainerd area is just for you! Look at the possibilities our multi-specialty clinic has to offer:

- No primary call
- Four day work week
- General Pediatric practice plus
- Enlarging consultative practice
- Active teaching program for med students and residents
- Excellent Family Practitioners
- Great Nurse Practitioners
- Superior Urgent Care and ER coverage
- Private Catholic hospital will exceed your expectations
- Above average income opportunity

To obtain more infromation about this Pediatric opportunity, please feel free to contact Pediatrician, Dr. Michael V. Severson, or Curt Nielsen, Clinic Administrator at the above address or phone number.

*Lakeview*
MEDICAL CLINIC, PA

Lakeview Medical Clinic P.A.

Lakeview Medical Clinic, PA, an independent, physician-owned clinic with two locations in Central Minnesota is seeking BE/BC physician in: Family Practice and General Internal Medicine

Lakeview Medical Clinic, PA, is a six-practitioner group that has experienced great growth in the past several years. These positions offer a competitive first-year salary guarantee and benefits package, plus signing bonus. Come grow with us.

***For more information contact:***
Phillip Malley, Administrator
Lakeview Medical Clinic, PA
433 Elm St. N., Sauk Centre, MN 56378
(320) 352-6591

**Continuing Medical Education**
**sponsored by Allina Health System**

### September 2000

**1** **Advanced Cardiac Life Support (ACLS)**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Abbott Northwestern Hospital, Minneapolis

**9** **Retina Update 2000**
PRESENTED BY: Phillips Eye Institute
LOCATION: Hotel Sofitel, Minneapolis

**14** **Electron Beam Computed Tomography Conference**
PRESENTED BY: Minneapolis Heart Institute
LOCATION: Abbott Northwestern Hospital, Minneapolis

**15** **Obsessive-Compulsive Disorders (OCD) in Adolescents**
PRESENTED BY: Allina Hospitals & Clinics Behavioral Health Aervices
LOCATION: United Hospital, St. Paul

**18 & 19** **Advanced Trauma Life Support (ATLS)**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: United Hospital Conference Center, St. Paul

### October 2000

**6** **The Prevention, Diagnosis and Treatment of Breast Disorders for Primary Care**
PRESENTED BY: The Breast Program of Mercy & Unity Hospitals
LOCATION: Earle Brown Heritage Center, Brooklyn Center

**13** **Minnesota and the Aging Driver: Your Options as a Professional**
PRESENTED BY: Allina Hospitals & Clinics, AAA, GRECC/VA Hospital, State of MN Dept. of Public Safety, and Sister Kenny Rehabilitation Services
LOCATION: Earle Brown Heritage Center, Brooklyn Center

**26 & 27** **2000 Front Line Neurology Symposium**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: DoubleTree Hotel, by Mall of America, Bloomington

**28** **7th Annual Orthopedics & Sports Medicine Symposium**
PRESENTED BY: Mercy and Unity Hospitals
LOCATION: Earle Brown Heritage Center, Brooklyn Center

### November 2000

**3** **Patient Educator Conference**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Abbott Northwestern Hospital, Minneapolis

### February 2001

**10** **Twin City Eye Meeting**
PRESENTED BY: University of Minnesota Department of Ophthalmology and Phillips Eye Institute
LOCATION: DoubleTree Park Place, St. Louis Park, MN

**For more information contact:**
**Allina Education and Research Administration at (612) 775-9626**

ALLINA.
HEALTH SYSTEM

®Allina Health System

# Election 2000

## What Your Vote May Mean for Health Care Policy

The two major political parties know that health care issues affect election outcomes and that elections affect health care.

In some elections, health care has almost failed to appear on the political radar screen. At other times, health care policy issues have dominated the political debate. In fact, in two of the last three presidential campaigns, health care issues were prominent. In 1988, long-term care was a critical subject in campaign debate, and in 1992, the uninsured and health system reform captured the public's attention. Although that election may be remembered for its emphasis on federal budget deficits and economic policy, Clinton's campaign promise of affordable health care for all ultimately entangled his administration in one of its biggest failures. For good or ill, elections significantly affect health care in this country. For that reason, it is worthwhile to analyze what the 2000 election will mean for the future of health care in America.

### *The Issues*

The 106th Congress has worked on, but has yet to resolve, major health policy problems that have the potential to emerge as significant campaign issues before November. In addition, several "sleeper" issues lie just below the consciousness of many voters and could quickly surface in full-scale public debates.

Many problems in health policy are technical, and when the scientific questions are resolved, the policy questions become relatively simple. Others are intensely political and their resolution involves bridging differences in the core values of America's political parties. These are the issues that are most likely to emerge in political campaigns because they help define partisan differences in ways that candidates feel help them make their case to the electorate.

The major areas of health policy that were left unresolved by the 106th Congress are very "political." The fact that power in the federal government is now divided between a Democratic administration and a Republican-controlled Congress has added to the difficulty in solving these problems.

The issues that are most likely to confront a new administration early are high prescription drug prices and a drug benefit for low-income seniors; the uninsured and their access to care; patient safety and medical errors; and patients' rights.

Other areas that may emerge include medical record privacy, long-term care, medical research, and biomedical ethics. And, every year questions are asked about Medicare's management and long-term solvency.

**By David Durenberger**

### Prescription Drugs

Perhaps the most difficult health issue facing the next administration and Congress involves the twin problems of high prescription drug prices and their effect on low-income seniors and the chronically ill. Evidence suggests that rising drug prices account for the most significant portion of health care and insurance cost increases. This concern is not likely to go away.



MIKE HARPER/ARTWORKS NEW YORK

Although most employers provide some level of prescription drug coverage for American workers, Medicare offers no outpatient prescription drug benefit. This creates a unique problem for seniors who do not have another form of health insurance. In states near Canada and Mexico, senior citizens regularly cross the borders to buy medications at much lower prices than they pay in the United States. A powerful sentiment throughout this country is that the pharmaceutical industry's pricing structure is arbitrary and preys on the most vulnerable.

Polling data show this is an issue that "moves votes." So it comes as no surprise that both George W. Bush and Al Gore have promised to deal with this problem if elected.

Republicans and Democrats have profound philosophical differences that become apparent when confronting health care issues in general and the Medicare program in particular. Democrats have proposed putting a new prescription drug benefit into the Medicare program and making it available to all seniors who choose it. They have a long tradition of treating Medicare as a broad-based program paid for by all working Americans through payroll taxes. They believe its broad base is essential for the program's long-term survival and want to continue that tradition by adding a new prescription drug benefit to the basic Medicare program. They believe Medicare's benefits should be available to all older Americans who apply.

Republicans, on the other hand, want a less costly program. They would like it to be means-tested and built upon the existing private-sector insurance programs already used to supplement Medicare. They do not share the Democratic view that a new prescription drug benefit should be added to Medicare and, thereby, become a basic middle-class right. They believe this will make the program too costly, and they do not want to devote as much of the projected budget surplus to Medicare as this would require. However, they have encountered difficult technical problems in trying to design their own version of a new government-subsidized, private insurance–based drug benefit for low-income seniors.

It is apparent from the debate in Congress this year that the issue does not lend itself to an easy solution. Resolving the controversies around drug pricing and a new drug benefit for seniors will require significant compromise on the part of all involved, and the outcome of this election will have a significant effect on the way that compromise occurs.

### The Uninsured and Their Access to Health Care

The increasing number of Americans who lack health insurance is another problem that continues to trouble voters. New data show the number of uninsured has reached 44 million people. What is not commonly known is that most of the uninsured are adults. While some choose not to buy insurance for personal or cultural reasons, the vast majority don't have insurance because they feel they can't afford it.

In 1997, Congress established the Children's Health

Insurance Program (CHIP), which gives grants to states to expand coverage for children. All 50 states have responded by adopting programs. Enrollment was initially targeted at 5 million children and has so far grown to about 2 million.

Meanwhile, not much attention has been paid to low-income adults, who account for 75 percent of the uninsured. More than half of uninsured, low-income adults live in households with at least one full-time worker. Further, the newly reformed welfare system will continue to push some adults off Medicaid and into the low-income job market, where affordable health insurance is not readily available.

In an extensive voter survey conducted this summer, 89 percent of registered voters said this problem was either very or somewhat important to them in making voting decisions.

Several proposals to expand coverage for adults were introduced in the last Congress. These proposals range from special tax credits, to medical savings accounts, to the introduction of health marts and association plans, to universal health coverage. Vice President Gore has proposed extending coverage to the parents of Medicaid- and CHIP-eligible children, and Gov. Bush is supporting new tax breaks to help people buy health insurance.

### Patient Safety and Medical Errors

Several years ago President Clinton assembled a commission to focus on the quality of health care and patient safety. Out of that effort flowed the National Quality Forum. The 1999 name change of the Agency for Health Care Policy and Research to the Agency for Healthcare Research and Quality (AHRQ) affirmed the importance of quality in research and care.

The 1999 Institute of Medicine (IOM) report on medical errors also sharpened the focus on quality. While some maintain that the report greatly overstated the number of medical errors, no one quarrels with the need for continuous improvement in health care quality and patient safety. Most remedies involve improving safety systems within the health care industry, but these changes raise public policy questions.

The IOM has called for the establishment of a Center for Patient Safety within the AHRQ. Others want public access to the National Practitioner Data Bank. In today's system, vulnerability to litigation poses a serious challenge to health care professionals and others who want comprehensive reporting of mistakes and open access to that information. Traditionally, patients have had to sue doctors or hospitals when they felt that they were badly treated in the health care system. This remedy is expensive for patients, unwieldy for the system, and drives doctors to practice defensive medicine. Obviously, that is not the best way to achieve improvements in the quality of health care.

### Patients' Rights

One congressional approach to quality improvement in medicine is the "patients' bill of rights." While patients' bill of rights proposals are commonly thought of as ways to make HMOs more responsive to patients, they can also be viewed as efforts to help patients deal with quality problems in the entire health care system. Both houses of Congress passed patients' bill of rights packages in the last two years, but as this issue of *Minnesota Medicine* goes to press they have not yet been able to resolve their differences and put a final package together, for a variety of substantive, partisan, and personal reasons. The House passed a strong bill with bipartisan support that covered 161 million people and provided expanded remedies to injured parties. The Senate passed a more limited bill that covered only 48 million people and did not provide for expansion of the right to sue or other remedies for injured participants. The Senate bill was passed largely on party lines after an acrimonious debate, and the issue has become highly politicized.

Democrats were very aggressive in highlighting this issue in their convention, and it has been prominent in Al Gore's campaign. The public is still very concerned about problems with HMOs and seems to want a patients' bill of rights. Whoever is elected president will probably deal with this issue and the problems it presents.

### Less-Visible Issues

Other less-visible but equally difficult issues that could garner public attention either through a major event or an advertising campaign include medical record privacy, long-term care, medical research, and biomedical ethics.

The questions surrounding patient privacy are difficult and touch deep concerns in the American electorate. The tensions between the need to protect patient privacy and the need to share information for medical research and public health have been exacerbated as the American health care system has grown more complex. Insurers and employers need patient information to pay bills, the government needs patient information for public health, and researchers continue to need information to advance science. As more and more people gain access to individually identifiable data, the public becomes increasingly uncomfortable. In response to a legislative mandate, the Department of Health and Human Services has proposed a new regulation to protect the confidentiality of patients' medical records. The regulation is controversial and may prove unworkable, so there continues to be pressure on Congress to enact comprehensive privacy legislation. Concerns about privacy can surface in the public consciousness at any time, and the next president may encounter privacy proposals in his first term.

Long-term care is becoming a more important issue as more families face the challenges of caring for frail,

elderly parents and other relatives. In March 1999, the Congressional Budget Office estimated that the total cost of long-term care in all settings from all sources would rise from $123.1 billion in 2000 to $207.3 billion in 2020. These estimates (in year 2000 dollars) represent a growth in real costs of 68 percent. Since Medicare and Medicaid pay a combined total of 73 percent of these costs, this is already a high federal budget priority. And 93 percent of all registered voters have said that long-term care issues are either very or somewhat important to them when deciding how to vote. Obviously, whoever wins the White House will be confronted with long-term care concerns.

Finally, one little-discussed issue that could pose major policy challenges is medical research and biomedical ethics. With the human genome project progressing swiftly, recent advances in genetic engineering, and other scientific developments, ethical questions have become extremely sensitive. While these issues have risen routinely in the appropriations process around such sensitive concerns as abortion, birth control, and fetal research, they have often been handled without much press coverage. Recent reports of poorly controlled research have raised public interest in the protection of human subjects. The next president will likely be confronted with major, highly public, highly charged medical research and biomedical ethics challenges.

## Conclusion

It is not clear which of these issues will become the subject of action by the federal government or what new problems will emerge. Today's critical issues may disappear or diminish in importance and require no further attention. Issues that seem minor today may explode across the American political landscape and fuel the major debates of tomorrow. What is clear is that whoever wins this election will face major challenges in the health policy arena. The next president will have to be deft at dealing with partisan differences, powerful industries, competitive interest groups, difficult budget demands, and scientific, technical, and ethical dilemmas in carving out the future of health care policy for America. We should all wish the president luck! MM

*Former Sen. David Durenberger is CEO of the National Institute of Health Policy, a partnership of the universities of Minnesota and St. Thomas that has the goal of improving health care by improving health policy. (See "Health Policy Hub" in the April 2000* Minnesota Medicine, *page 26.)*


**Air Force Healthcare. Good Pay. Professional Respect.**

**Why Do You Think We Say "Aim High"?**

Experience the best of everything. Best facilities. Best benefits. Outstanding opportunities for travel, 30 days vacation with pay, training and advancement.

**For an information packet call**
**1-800-423-USAF**
**or visit www.airforce.com.**

You'll see why we say, "Aim High."

AIM HIGH
AIR FORCE
HEALTH PROFESSIONS

*If you are looking for professional growth and long term financial security, consider*

PREVEA CLINIC

PREVEA CLINIC, Green Bay, Wisconsin, is a large multi-specialty physician owned clinic, expanding to meet a thriving patient base in a 200,000 community with a strong work ethic, located in beautiful Northeastern Wisconsin. Enjoy boating on the shores of Lake Michigan and an array of outdoor sports plus a quality family life focusing on traditional values.

Professionally you will share ownership and the ability to control medical choices for care with other department members. Excellent compensation and benefits are being offered for the following opportunities:

- Dermatology
- Endocrinology
- Family Medicine
- Hospitalist
- Neurology
- Neurosurgery
- Obstetrics/Gynecology
- Pediatric Critical Care
- Pediatric Ophthalmology
- Rheumatology
- Urology

For more information regarding shareholder opportunities with Prevea Clinic, contact Claudine Taub at 1-800-236-3030 or fax your CV: 920-431-3043. Or, visit our website at http://www.prevea.com.

## *MEDPAC Board of Directors*

John Abenstein, M.D.
Charles Bertel, M.D.
H. Thomas Blum, M.D.
Ray Christensen, M.D.
Ken Crabb, M.D.
James Dehen, M.D.
John Dowdle, M.D.
Sandra Dummit
J. Frank Foss, M.D.
Becky Gonzalez-Campoy
Teresa Gurin, M.D.
A. Stuart Hanson, M.D.
William Jacott, M.D.
Anthony Jaspers, M.D., chair
Peter Larsen, M.D.
Lyle Munneke, M.D.
Michael Murray, M.D.
Ingrid Neel, M.D.
Timothy H. Olson
Thomas Peyla, M.D.
Judith Shank, M.D.
Janette Strathy, M.D.
Jim Wilkus



MEDPAC

Dear Colleague,

The Minnesota Medical Political Action Committee Board of Directors urges you to vote for these MEDPAC-endorsed candidates. As a leader in your community, you are well aware of the importance of voting on November 7, 2000. This year, the entire Minnesota Legislature, all eight U.S. congressional seats, and one U.S. Senate seat are up for election. The winners of these races will be making decisions that will affect your practice and your patients.

This list of MEDPAC endorsements is the result of long hours of interviewing candidates and researching and analyzing the races. Decisions were based on three criteria:

- the candidate's position on issues that are important to Minnesota physicians,
- the candidate's ability to win,
- input from physicians and alliance members in the candidate's district.

Please note that MEDPAC chose not to endorse either candidate in some races. MEDPAC endorsements reflect a conviction that the candidate will be willing to support the MMA on the most crucial issues.

I urge you to support the MEDPAC-endorsed candidates, not only with your vote, but also by participating in the 2000 campaigns. Legislators appreciate the help of constituents who attend or host fundraisers, distribute campaign literature, or staff phone banks.

If you have any questions, please call MEDPAC at 612/623-9696 or 800/999-1875.

Sincerely,

Anthony Jaspers, M.D.

MEDPAC

# Minnesota Political Action Committee Endorsements for the 2000 Elections

**Finding your legislative district.** Each MMA member's legislative district appears after their telephone number in the *MMA 2000 Member Directory* (on the phone number line). You can also determine your district by visiting the Pioneer Planet Web site at www.pioneerplanet.com/archive/capitol ("Find where you vote") or by contacting the MMA at 888/662-6774.

+Note: In legislative districts where the endorsement is pending, personal letters will be sent prior to the November 7 election to physicians living in those districts indicating MEDPAC's endorsement decision.

*Open seat

---

U.S. Senate
Endorsement pending

U.S. House of Representatives
Dist. 1 Gil Gutknecht, R
Dist. 2 David Minge, D
Dist. 3 Jim Ramstad, R
Dist. 4 Betty McCollum, D*
Dist. 5 Martin Sabo, DFL
Dist. 6 Bill Luther, DFL
Dist. 7 Collin Peterson, DFL
Dist. 8 Jim Oberstar, DFL

State Senate
03 Bob Lessard, DFL
05 Dave Tomassoni, DFL *
06 Doug Johnson, DFL
07 Sam Solon, DFL
10 Cal Larson, R
11 Dallas Sams, DFL
12 Don Samuelson, DFL
13 Charlie Berg, R
15 Dean Johnson, DFL
17 Dan Stevens, R
24 John Hottinger, DFL
28 Dick Day, R
30 Sheila Kiscaden, R
36 David Knutson, R
38 Deanna Wiener, DFL
39 James Metzen, DFL
40 Dave Johnson, DFL
42 Roy Terwilliger, R
43 Ed Oliver, R
45 Martha Robertson, R
46 Ann Rest, DFL *
50 Endorsement Pending +*
51 Howard Juni, R
52 Endorsement Pending +*
53 Mady Reiter, R *
55 Chuck Wiger, DFL
56 Ted Thompson, DFL
57 Len Price, DFL
60 Myron Orfield, DFL *
62*

State House of Representatives
04B Larry Howes, R
05B Endorsement Pending +*
06B Tom Huntley, D
09A Kevin Goodno, R
10A Larry Nornes, R
12A Kris Hasskamp, DFL
18A Rob Eastlund, R*
18B Loren Jennings, DFL
21B Richard Mulder, R
24A John Dorn, DFL
28A Connie Ruth, R*
28B Steve Sviggum, R
30B Dave Bishop. R
31B Greg Davids, R
33B Rich Stanek, R
34B Jeff Johnson, R *
38A Tim Wilkin, R
38B Tim Pawlenty, R
39A Tom Pugh, DFL
42A Ron Erhardt, R
45A Ron Abrams, R
45B Peggy Leppik, R
46A Lynne Osterman, R *
47A Darlene Luther, DFL
47B Debra Hillstrom, D*
48A Bill Haas, R
48B Connie Bernardy, DFL *
49A Jim Abeler, R
50B Kathy Tingelstad, R
52A Endorsement Pending +*
52B Char Samuelson, R *
53A Phil Krinkie, R
53B Carl Jacobson, R *
55B Scott Wasiluk, D*
56B Eric Lipman, R*
57A Jim Seifert, R
60B Scott Dibble, DFL *
61B Endorsement Pending +*
62A Jim Davnie, D+*
67B*

# MEDSTAT

SPECIALIZED MEDICAL TRANSPORTATION

***"A VITAL LINK BETWEEN PATIENT AND PHYSICIAN."***

**DEDICATED TO ASSISTING**

**THE MEDICAL COMMUNITY**

**IN THE PROVISION OF**

**OPTIMAL PATIENT CARE**

**AND CLIENT SERVICES.**

Much more than a courier service, MEDSTAT can meet the unique needs of the medical community. MEDSTAT's relationship with MMBR allows MMA members and their clinics to receive medical transportation rates that are generally below that of traditional transportation companies.

## MEDSTAT is a unique transportation system that can provide you with the following:

- Medical interoffice transport
  PATIENT RECORDS, FILMS, OFFICE CORRESPONDENCE, ETC.
- Laboratory specimen pick up and delivery
- Blood transport services
- Medical distribution
- Medical supply pick up and delivery
- Medical vendor/medical provider transport
- Pharmacy distribution
  RETAIL, WHOLESALE, COMMERCIAL AND INTRAVENOUS
- Home health care/patient interactive pick up and delivery
- Limited on-demand services

MEDSTAT

SPECIALIZED MEDICAL TRANSPORTATION

***MEDSTAT SYSTEMS, INC.***
5155 East River Road, Suite 407
Fridley, MN 55421
Office: 612/586-8146
Toll free: 888/234-3618
Fax: 612/586-8147
email: vitallink@earthlink.net
www.medstatsystems.com

MMBR
MINNESOTA MEDICAL BUSINESS RESOURCES
OWNED BY MMA & HMS

**Minnesota Medical Business Resources**
3433 Broadway Street NE, Suite 395
Minneapolis, MN 55413
612/623-2860
e-mail: mmbr@mnmed.org
internet: mnmed.org/mmbr

# Antibiotic Bacterial Resistance in Ambulatory Patients

Barbara P. Yawn, M.D., M.Sc., Peter Wollan, Ph.D., Frank Cockerill, M.D., and Eva Lydick, Ph.D.

ABSTRACT

**Background:** This study evaluates trends in antibiotic resistance in patients who were treated in an ambulatory setting.

**Methods:** The authors compiled the data from all lower respiratory track (sputum) cultures collected from ambulatory patients who visited the Olmsted Medical Center and Mayo Clinic between 1985 and 1998. Cultured organisms were identified, and Minimal Inhibitory Concentration (MIC) values were presented and categorized as susceptible, intermediate, or resistant based on the National Committee for Clinical Laboratory Standards (NCCLS) guidelines for MIC and antibiotic susceptibility.

**Results:** 4,297 potentially pathogenic organisms were obtained from sputum cultures for 1,921 patients. The most discernible changes in antibiotic resistance appeared to be in cultures positive for *Pseudomonas aeruginosa*. A trend toward increasing resistance of isolates of *Streptococcus pneumoniae* to beta-lactam drugs was observed in a portion of the population. An emerging intermediate susceptibility among isolates of *Klebsiella pneumoniae* and *Pseudoumonas* species was noted.

**Conclusions:** Trends in antimicrobial resistance of respiratory pathogens from ambulatory patients are less clear than those from hospitalized patients, but must be monitored because of the high percentage of ambulatory patients who receive empirical therapies. Trends in intermediate susceptibility patterns may help reveal emerging antimicrobial resistance.

Antibiotic resistance in hospitalized or other specialized groups of patients has often been studied and reported,[1-5] but few reports have been published on antibiotic resistance in patients whose infections do not result in hospitalization.[6-12] To overcome this gap in information, data from hospital studies are often extrapolated to the ambulatory patient populations.[10] Such assumptions are likely unwarranted without careful testing since hospitalized patients often have multiple problems, may have received one or more courses of antibiotics prior to hospitalization, or may acquire their infections while hospitalized. In addition, the antimicrobial use patterns are likely to be quite different among ambulatory and hospitalized patients, and some work suggests that antibiotic resistance may be affected by antibiotic use.[8,13-15] Therefore, it is important to identify trends (if any) in antibiotic resistance in community-acquired infections treated in the ambulatory setting without the confounding influence of hospitalization or chronic diseases.[10,13,16]

## Methods

This is the preliminary report from a pilot study of lower respiratory track (sputum) samples collected in the course of care of ambulatory patients who visited the Olmsted Medical Center and Mayo Clinic between 1985 and 1998. The results represent data from all sputum cultures provided by outpatients during that time. Because of the small numbers of positive cultures from ambulatory patients each year, data are presented for both the patients that reside in Olmsted County, Minnesota (community population), and the total population of patients visiting any physician practicing in Olmsted County (referral and community populations) who had sputum cultures completed in the ambulatory setting. These data should identify any organism in which antibiotic resistance has changed over this 14-year period.

### Population

The "community population" data include only information from residents of Olmsted County whose cultures were obtained at either the Olmsted Medical Center or the Mayo Clinic. These two facilities provide all microbiology services within the county. Olmsted County has a population of approximately 102,000, over 90% of whom are white and non-Hispanic. The age and occupational distributions are similar to those of the U.S. white population. The "total population" data includes information from both the Olmsted County patients plus the outside patients visiting the Mayo Clinic during the period of interest.*

### Data source

Because the Mayo Clinic microbiology laboratory provides all evaluations of sputum cultures, data was taken from the Mayo Clinic labora-

*The sample of Olmsted County patients is incomplete because data from the Olmsted Medical Center was inaccessible during 1993 because of the installation of a new electronic data system that compiled the 1993 data. That the 1993 data was unavailable is unlikely to have a significant impact on the outcome since it is estimated that fewer than 40 sputum cultures would have been collected from Olmsted Medical Center ambulatory patients in 1993. And of those collected, only five to eight are likely to have been positive for pathogens.

Table 1

*Antimicrobial agent susceptibility patterns for* Streptococcus pneumoniae

| Year | Olmsted County | | | All Combined | | |
|---|---|---|---|---|---|---|
| | Susceptible | Intermediate | Resistant | Susceptible | Intermediate | Resistant |
| **Penicillin MIC – Susceptible: #0.06, Intermediate: 1, Resistant: ∃2** | | | | | | |
| 1993 | 2 (67) | 1 (33) | 0 | 13 (72) | 3 (17) | 2 (11) |
| 1994 | 2 (40) | 1 (20) | 2 (40) | 28 (80) | 5 (14) | 2 (6) |
| 1995 | 0 | 3 (100) | 0 | 8 (67) | 4 (33) | 0 |
| 1996 | 6 (86) | 1 (14) | 0 | 35 (73) | 9 (19) | 4 (8) |
| 1997 | 3 (75) | 1 (25) | 0 | 17 (61) | 10 (36) | 1 (4) |
| 1998 | 2 (50) | 2 (50) | 0 | 9 (35) | 11(42) | 6 (23) |
| Camparing 1993–1995 vs. 1996–1998, S vs. I-R: Olmsted Caunty p=0.11, all p=0.045 | | | | | | |
| **Cefotaxime MIC – Susceptible: #0.5, Intermediate: 1, Resistant: ∃2** | | | | | | |
| 1993 | 1 (100) | 0 | 0 | 4 (67) | 0 | 2 (33) |
| 1994 | 0 | 2 (67) | 1 (33) | 4 (57) | 2 (29) | 1 (14) |
| 1995 | 0 | 2 (100) | 0 | 0 | 2 (100) | 0 |
| 1996 | 6 (86) | 1 (14) | 0 | 43 (90) | 5 (10) | 0 |
| 1997 | 3 (75) | 1 (25) | 0 | 23 (82) | 4 (14) | 1 (4) |
| 1998 | 3 (75) | 0 | 17 (25) | 17 (65) | 5 (19) | 4 (15) |
| Camparing 1993–1995 vs. 1996–1998, S vs. I-R: Olmsted Caunty p=0.014, all p=0.04 | | | | | | |
| **Ceftriaxone MIC – Sensitive: #0.5, Intermediate: 1, Resistant: ∃2** | | | | | | |
| 1993 | 1 (100) | 0 | 0 | 4 (67) | 0 | 2 (33) |
| 1994 | 0 | 2 (67) | 1 (33) | 4 (57) | 2 (29) | 1 (14) |
| 1995 | 7 (100) | 0 | 0 | 39 (95) | 1 (2) | 1 (2) |
| 1996 | 7 (100) | 0 | 0 | 45 (94) | 3 (6) | 0 |
| 1997 | 3 (75) | 1 (25) | 0 | 26 (93) | 1 (4) | 1 (4) |
| 1998 | 3 (75) | 1 (25) | 0 | 19 (73) | 6 (23) | 1 (4) |
| Comparing 1993–1995 vs. 1996–1998, S vs. I-R: Olmsted County p = 0.62, all p = 0.80 | | | | | | |

tory information system. Only data from cultures in which an organism was identified are presented. Multiple isolates of the same type of organism type (genus and species) were included where multiple colonies with morphological differences were each cultured separately and the isolates had different susceptibility patterns (n=14). The Minimal Inhibitory Concentration (MIC) values are presented and grouped under the interpretative categories susceptible, intermediate, or resistant based on the 1999 NCCLS guidelines for MIC and antibiotic susceptibility.[17] MIC interpretive categories for susceptibility have been modified over time. That information is not presented here and was not considered relevant to the analysis. The current NCCLS guidelines represent the most comprehensive and accurate interpretation for antimicrobial resistance.

Two organisms, *Chlamydia pneumoniae* and *Mycoplasma pneumoniae*, believed to be responsible for a majority of lower respiratory infections in the community, are not routinely cultured from sputum. These organisms are most reliably detected by serological rather than cultured-based methods. Moreover, susceptibility testing is not performed for these organisms since antimicrobial resistance has not emerged and standard susceptibility testing requires isolation of the organism by culture.

Data are presented from 4,297 potentially pathogenic bacterial isolates obtained between 1985 and 1998 from 1,921 patients. Data were tabulated for the organisms reported to be of greatest interest: *Streptococcus pneumonia, Haemophilus influenza, Haemophilus parainfluenza, Klebsiella pneumonia, Pseudomonas aeruginosa,* and *Staphylococcus aureus.* The latter organism may be either a pathogen or a contaminant in sputum cultures, but data are included here as a potential marker of increasing levels of antibiotic resistance. The years of available data vary by the organism and the antibiotic tested.

### Data analysis

Due to the small number of cultures, data are grouped for statistical testing into arbitrary time periods to assess trends in individual organisms. When sample size is sufficient, p values for trends or Mantel Haenzel chi-square tests are presented.

## Results

The data for *S pneumoniae* are based on very few isolates, varying from one to seven per year in the Olmsted County population. The inclusion of the total Mayo Clinic ambulatory referral patient population increases the sample size to 12–48 for most of the years of observation. No trends could be discerned for the community population. However, when the total population is considered, a trend toward resistance to penicillin and other beta-lactam (including cephalosporin) drugs appeared in the period 1996 through 1998 compared with 1993 through 1995 ($p = 0.06$) (Table 1). Data for vancomycin susceptibility is not presented for any year prior to 1995 for *S pneumoniae* because susceptibility interpretive guidelines did not exist or varied considerably. Furthermore, the breakpoint value for vancomycin resistance is unknown because no vancomycin-resistant *S pneumoniae* strains have been identified.

*Pseudomonas aeruginosa* was the most frequently identified bacterial pathogen in both community and combined populations. For ciprofloxacin, isolates from both the community and combined populations showed increasing rates of resistance in more recent years ($p< 0.005$). Moreover, the trend may have begun three years earlier (1991 vs. 1994) in the combined population than in the community population, suggesting that ciprofloxocin resistance first occurred in patients from outside Olmsted County. A similar trend was observed for gentamicin susceptibility beginning at about the same time but only reached statistical significance in the combined population ($p=0.14$ and $p< 0.0001$). Increased resistance to cefotaxime appeared a little earlier than other drugs in the community population and at about the same time in the combined or referral population, but again only showing statistical significance in the combined population ($p=0.21$ and $p=0.02$, respectively). No trends in resistance were found for ceftazidine, mezlocillin, or piperacillin/tazobactam. Increases in rates of resistance of *Pserugenosa* isolates to amikacin were seen in the combined population ($p=0.0003$). Conversely, decreasing rates of resistance were seen for imipenen ($p<0.001$) (Table 2).

Isolates of *H influenzae* and *H parainfluenzae* were infrequent in the community population, but increased markedly in 1998. The reason for this increase is unknown; furthermore, this increase was present in both the community and the total populations. It may in part reflect the increase in the total number of patients who made visits or represent a change in practice patterns resulting in more cultures ordered. Ampicillin is the only antibiotic routinely tested against these organisms. No isolates of *H parainfluenza* from the community population were resistant to ampicillin; and only one isolate showed intermediate resistance to ampicillin in the combined populations. However, isolates of *H influenza* that were intermediately susceptible or resistant to ampicillin were noted after 1992 (data not shown).

Data for *S aureus* are also limited. However, the total number of isolates increased in both the community and combined populations in 1997 and 1998. The increase may relate to the total number of patients who were evaluated or cultures that were ordered. All *S aureus* isolates were resistant to ampicillin prior to 1993, with a few cases of isolates susceptible to ampicillin after that time. (This may simply reflect the increase in numbers of isolates and is not statistically significant.) Resistance to penicillin, oxacillin, and erythromycin increased in both the community and combined populations between 1985 through 1991 and 1992 through 1998 ($p=0.16$ for community population and $p=0.0004$ for the combined population). Until 1992, all isolates of *S aureus* were susceptible to cefazolin, clindamycin, and ciprofloxacin. After that time cases of intermediate susceptibility began to increase for all three drugs ($p\leq 0.001$) with the appearance of isolates resistant to both cefazolin and ciprofloxacin after 1992 (data not shown).

Until 1998, isolates of *K pneumoniae* showed stable and consistent susceptibility to most antibiotics in both populations with the exception of sporadic resistance to trimethorim/sulfamethoxazole. In 1998, a few *K pneumoniae* isolates demonstrated intermediate susceptibility and resistance to ciprofloxacin, gentamicin, ticarcillin/clavulanic acid, and mezlocillin, with a statistically significant increase in combined intermediate susceptibility and resistance to all except mezlocillin. This was preceded by a few cases of intermediate susceptibility to ticaricillin/clavulanic acid beginning in 1995. There was no noted resistance to the extended spectrum beta-lactam antibiotics ceftazidime and cefotaxime (data not shown).

## Discussion

The most discernible changes in antibiotic resistance of organisms isolated from the sputum of ambulatory patients appeared to be in cultures positive for *P aeruginosa*. For the commonly used antibiotics, resistance appeared to increase in 1994 or 1995 and was similar for all three drugs routinely tested (gentamicin, cefotaxime, and ciprofloxacin). Among more closely controlled antibiotics, only amikacin showed an increase in resistance. A similar trend has been reported in large surveys in other countries, but the studies have combined inpatient and outpatient samples.[3,4,18,19] This trend should be evaluated more fully, including a review of the medical records of these patients to determine comorbidities and previous antibiotic use. Our review did not include patients with community-acquired pneumonia whose cultures were obtained exclusively in the hospital. This information may lead to identification of additional cases for review. In addition, assessing treatment and outcomes in the groups with resistant organisms would provide the clinical data required to

Table 2

*Antimicrobial agent susceptibility patterns for* Pseudomonas aeruginosa

| Year | Olmsted County | | | All Combined | | |
|---|---|---|---|---|---|---|
| | Susceptible | Intermediate | Resistant | Susceptible | Intermediate | Resistant |
| **Ciprofloxacin Susceptible: #1, Intermediate: 2, Resistant: ∃4** | | | | | | |
| 1988 | 19 (95) | 1 (5) | 0 | 51 (93) | 3 (5) | 1 (2) |
| 1989 | 14 (100) | 0 | 0 | 49 (92) | 3 (6) | 1 (2) |
| 1990 | 10 (83) | 2 (17) | 0 | 53 (93) | 4 (7) | 0 |
| 1991 | 7 (78) | 1 (11) | 1 (11) | 40 (85) | 3 (6) | 4 (9) |
| 1992 | 3 (100) | 0 | 0 | 44 (92) | 2 (4) | 2 (4) |
| 1993 | 12 (92) | 0 | 1 (8) | 90 (90) | 3 (3) | 7 (7) |
| 1994 | 14 (64) | 0 | 8 (36) | 64 (74) | 7 (8) | 15 (17) |
| 1995 | 36 (95) | 1 (3) | 1 (3) | 105 (81) | 16 (12) | 9 (7) |
| 1996 | 41 (69) | 14 (24) | 4 (7) | 136 (75) | 27 (15) | 18 (10) |
| 1997 | 34 (67) | 14 (27) | 3 (6) | 122 (70) | 31 (18) | 21 (12) |
| 1998 | 87 (72) | 14 (12) | 19 (12) | 247 (67) | 45 (12) | 75 (20) |
| Comparing 1988–1992 vs. 1993–1998, Olmsted County p=0.005, all p<0.0001 | | | | | | |
| **Gentamicin Susceptible: #4, Intermediate: 8, Resistant: ∃16** | | | | | | |
| 1985 | 3 (75) | 1 (25) | 0 | 19 (90) | 2 (10) | 0 |
| 1986 | 13 (87) | 2 (13) | 0 | 41 (95) | 2 (5) | 0 |
| 1987 | 9 (100) | 0 | 0 | 46 (98) | 1 (2) | 0 |
| 1988 | 22 (92) | 2 (8) | 0 | 56 (92) | 5 (8) | 0 |
| 1989 | 14 (100) | 0 | 0 | 49 (92) | 4 (8) | 0 |
| 1990 | 11 (92) | 1 (8) | 0 | 53 (93) | 4 (7) | 0 |
| 1991 | 9 (100) | 0 | 0 | 45 (96) | 2 (4) | 0 |
| 1992 | 3 (100) | 0 | 0 | 46 (96) | 2 (4) | 0 |
| 1993 | 11 (85) | 2 (15) | 0 | 84 (85) | 7 (7) | 8 (8) |
| 1994 | 17 (77) | 4 (18) | 1 (5) | 73 (85) | 7 (8) | 6 (7) |
| 1995 | 33 (87) | 5 (13) | 0 | 112 (86) | 12 (9) | 6 (5) |
| 1996 | 49 (83) | 7 (12) | 3 (5) | 149 (82) | 20 (11) | 12 (7) |
| 1997 | 48 (94) | 2 (4) | 1 (2) | 135 (78) | 22 (13) | 17 (10) |
| 1998 | 109 (91) | 4 (3) | 7 (6) | 302 (82) | 26 (7) | 39 (11) |
| Comparing 1985–1992 vs. 1993–1998, Olmsted County p=0.14, all p<0.0001 | | | | | | |
| **Cefotaxime MIC – Sensitive: #8, Intermediate: -32, Resistant: ∃64** | | | | | | |
| 1986 | 3 (43) | 3 (43) | 1 (14) | 6 (46) | 6 (46) | 1 (8) |
| 1987 | 2 (22) | 4 (44) | 3 (33) | 15 (32) | 23 (49) | 9 (19) |
| 1988 | 3 (12) | 16 (67) | 5 (21) | 19 (31) | 30 (49) | 12 (20) |
| 1989 | 2 (14) | 8 (57) | 4 (29) | 22 (42) | 21 (40) | 10 (19) |
| 1990 | 1 (8) | 8 (67) | 3 (25) | 26 (46) | 21 (37) | 10 (18) |
| 1991 | 2 (22) | 6 (67) | 1 (11) | 17 (36) | 22 (47) | 8 (17) |
| 1992 | 1 (33) | 2 (67) | 0 | 21 (44) | 17 (35) | 10 (21) |
| 1993 | 2 (15) | 6 (46) | 5 (38) | 35 (35) | 39 (39) | 26 (26) |
| 1994 | 4 (18) | 9 (41) | 9 (41) | 29 (34) | 36 (42) | 20 (24) |
| 1995 | 15 (39) | 17 (45) | 6 (16) | 47 (36) | 64 (49) | 19 (15) |
| 1996 | 21 (36) | 22 (37) | 16 (27) | 67 (37) | 59 (33) | 55 (30) |
| 1997 | 10 (20) | 30 (59) | 11 (22) | 56 (32) | 73 (42) | 45 (26) |
| 1998 | 25 (21) | 66 (55) | 29 (24) | 128 (35) | 135 (37) | 104 (28) |
| Comparing 1986–1992 vs. 1993–1998, Olmsted County p = 0.21, all p = 0.02<br>Small decrease in S & I, small increase in R | | | | | | |

support the utility of in vitro susceptibility testing. The reasons for the large number of isolates of *P aeruginosa* compared with other pathogens in the community population are not known. It is surprising to find this organism to be the most commonly isolated organism in a community population.

Increasing resistance of isolates of *S pneumoniae* to beta-lactam drugs was observed in the total population but not the community population. This trend did not appear until 1996 and was, therefore, observed later than the trend reported in the literature that began prior to 1994.[20-26] These differences in trends may reflect the small sample sizes or a delay in the emergence of resistant *S pneumoniae* clones in the ambulatory population studied. Recently, some *K pneumoniae* clinical isolates from patients at the Mayo Clinic have been demonstrated to carry extended-spectrum beta-lactamases (ESBLs), which are enzymes that hydrolyze extended spectrum beta-lactam antibiotics. Detection of ESBLs may be challenging. Since 1999, more sensitive methods for detecting ESBLs have been in use that were not available for the *K pneumoniae* isolates in the present study.

Over the years, the NCCLS has changed the guidelines for bacterial susceptibility parameters. These changes are frequently based on patient outcomes data and on discovery of antimicrobial resistance associated genes (mutations).[17,27] Monitoring antimicrobial resistance in the community is important so that physicians can be advised about appropriate empirical therapy for patients, especially for those with respiratory infections who are frequently treated in the outpatient setting without culture-based identity of pathogens or antimicrobial susceptibility results.

Increasing intermediate susceptibility to a specific class of antimicrobial agents for bacterial isolates from ambulatory patients might be sentinel data that precedes the appearance of resistance or it may simply reflect variations in laboratory measurements of MIC. Following trends in susceptibility patterns, including trends toward increasing intermediate susceptibility, might provide a useful proxy for identifying emerging antimicrobial resistance. In the current study, we observed emerging intermediate susceptibility among isolates of *K pneumoniae* and *P* species.

Bacterial resistance to antimicrobial agents may be related directly to antibiotic use. Use of beta-lactam antibiotics, for example, may induce the production of beta lactamase harbored by some organisms; this enzyme then hydrolyzes these antibiotics, rendering them ineffective. In other instances, e.g., use of quinolones, mutations occur at a target site for the antibiotic that renders it ineffective. Other types of resistance may emerge due to the use of broad-spectrum antibiotics that select for resistant bacterial strains.[18-19,28-30] The resistance associated with antibiotic use requires special attention. Antibiotic agents commonly used in ambulatory practices in this community could be compared with the emerging patterns of resistance. If associations were found, this would facilitate the development of programs targeted at decreasing the empirical use of broad-spectrum antimicrobial agents that may be associated with emerging resistance in the ambulatory setting.

## Conclusion

In this pilot study, *P aeruginosa* demonstrated a pattern of increasing resistance to nearly all antibiotics tested in an ambulatory population. A second bacterium, *K pneumonia,* demonstrated a pattern of increasing partial resistance (intermediate susceptibility) to several antibiotics. We found minor increases in antibiotic resistance for isolates of *S pneumonia.* Additional studies of the ambulatory population will be useful to assess evolving antimicrobial resistance patterns in ambulatory patients. **MM**

*Barbara Yawn is the director, Peter Wollan is a statistician, and Eva Lydick is a consulting epidemiologist at the Olmsted Medical Center Department of Research. Frank Cockerill is a professor of laboratory medicine at the Mayo Clinic.*

***Acknowledgment***

*The authors greatly appreciate the help of Carolyn Hain in preparation of this manuscript.*

REFERENCES

1. Pallares R, Linares J, Vadillo M, et al. Resistance to penicillin and cephalosporin and mortality from severe pneumococcal pneumonia in Barcelona, Spain. N Engl J Med 1995;333:474-80.
2. Bryce EA, Smith JA. Focused microbiological surveillance and gram-negative beta-lactamase-mediated resistance in an intensive care unit. Infect Control Hosp Epidemiol 1995;16(6):331-4.
3. Bonfiglio G, Carciotto V, Russo G, et al. Antibiotic resistance in *Pseudomonas aeruginosa*: an Italian survey. J Antimicrob Chemother 1998;41(2):307-10.
4. Sanders CC, Sanders WE Jr. Beta-lactam resistance in gram-negative bacteria: global trends and clinical impact. Clin Infect Dis 1992;15(5):824-39.
5. Tomasz A. Multiple-antibiotic-resistant pathogenic bacteria: a report on the Rockefeller University Workshop. N Engl J Med 1994;33:1247-51.
6. Green M, Wald ER. Emerging resistance to antibiotics: impact on respiratory infections in the outpatient setting. Ann Allergy Asthma Immunol 1996;77(3):167-73; quiz 173-5.
7. Doern GV, Brueggemann AB, Pierce G, Hogan T, Holley HP Jr, Rauch A. Prevalence of antimicrobial resistance among 723 outpatient clinical isolates of *Moraxella catarrhalis* in the United States in 1994 and 1995: results of a 30-center national surveillance study. J Antimicrob Agents Chemother 1996;40(12):2884-6.
8. Seppala H, Klaukka T, Lehtonen R, Nenonen E, Huovinen P. Outpatient use of erythromycin: link to increased erythromycin resistance in group A *streptococci*. Clin Infect Dis 1995;21(6):1378-85.
9. Werk LN, Bauchner H. Practical considerations when treating children with antimicrobials in the outpatient setting. Drugs 1998;55(6):779-90.
10. Ellison MJ, Horner RD, Lucey MJ, Crabtree DW. Outpatient antimicrobial susceptibility: comparison with inpatient susceptibility patterns. J Am Board Fam Pract 1989;2(4):223-6.
11. Farber MO. Managing community-acquired pneumonia. Factors to consider in outpatient care. Postgrad Med 1999; 105(4):106-14.
12. Graham NMH. Epidemiology and pharmacoeconomic issues relating to acute respiratory tract infections and acute uncomplicated infections of the urinary tract. PharmacoEconomoics 1994;5(S2):1-10.
13. MacDonald TM, Collins D, McGilchrist MM, et al. The utilization and economic

evaluation of antibiotics prescribed in primary care. J Antimicrob Chemother 1995;35: 191-204.
14. Aronoff SC, Shlaes DM. Factors that influence the evolution of beta-lactam resistance in beta-lactamase-inducible strains of *Enterobacter cloacae* and *Pseudomonas aeruginosa*. J Infect Dis 1987;155(5): 936-41.
15. Richard P, Delangle MH, Merrien D, et al. Fluoroquinolone use and fluoroquinolone resistance: is there an association? Clin Infect Dis 1994;19(1):54-9.
16. Holmberg SD, Solomon SL, Blake PA. Health and economic impacts of antimicrobial resistance. Rev Infect Dis 1987;9:1065-1078.
17. Performance standards for antimicrobial susceptibility testing; Ninth Informational Supplement. Villanova, PA: National Committee for Clinical Laboratory Standards, 1999. NCCLS document M100-S9.
18. Colom K, Fdz-Aranguiz A, Suinaga E, Cisterna R. Emergence of resistance to beta-lactam agents in *Pseudomonas aeruginosa* with group I beta-lactamases in Spain. Eur J Clin Microbiol Infect Dis 1995;14(11): 964-71.
19. Weber G, Riesenberg K, Schlaeffer F, Peled N, Borer A, Yagupsky P. Changing trends in frequency and antimicrobial resistance of urinary pathogens in outpatient clinics and a hospital in Southern Israel, 1991-1995. Eur J Clin Microbiol Infect Dis 1997;16(11):834-8.
20. Musher DM, Groover JE, Reichler MR, et al. Emergence of antibody to capsular polysaccharides of *Streptococcus pneumoniae* during outbreaks of pneumonia: association with nasopharyngeal colonization. Clin Infect Dis 1997;24:441-6.
21. Defining the public health impact of drug-resistant *Streptococcus pneumoniae*: report of a working group. MMWR Morb Mortal Wkly Rep 1996;45(RR-1):1-20.
22. Hemorrhage and shock associated with invasive pneumococcal infection in healthy infants and children–New Mexico, 1993-1994. MMWR Morb Mort Wkly Rep 1995;43:949-52.
23. Haglund LA, Istre GR, Pickett Da, Welch DF, Fine DP. Invasive pneumococcal disease in central Oklahoma: emergence of high-level penicillin resistance and multiple antibiotic resistance. J Infect Dis 1993; 168:1532-6.
24. Hofmann J, Cetron MS, Farley MM, et al. The prevalence of drug-resistant *Streptococcus pneumonia* in Atlanta. N Engl J Med 1995;333:481-6.
25. Duchin JS, Breiman RF, Diamond A, et al. High prevalence of multi-drug-resistant *Streptococcus pneumoniae* among children in a rural Kentucky community. Pediatr Infect Dis J 1995;14:745-50.
26. Butler JC, Hofmann J, Cetron MS, Elliott JA, Facklam RR, Breiman RF. The continued emergence of drug-resistant *Streptococcus pneumoniae* in the United States: an update from the Centers for Disease Control and Prevention's Pneumococcal Sentinel Surveillance System. J Infect Dis 1996;174:986-93.
27. Methods for dilution antimicrobial susceptibility tests for bacteria that grow aerobically. 3rd ed. Approved standard. Villanova, PA: National Committee for Clinical Laboratory Standards, 1998. NCCLS document M7-A3.
28. Aronoff SC. The emergence of beta-lactam resistance among strains of *Enterobacter cloacae* and *Pseudomonas aeruginosa*. Pediatr Infect Dis J 1989;8(9 Suppl):S100-3; discussion S128-32 .
29. Chen HY, Yuan M, Livermore DM. Mechanisms of resistance to beta-lactam antibiotics amongst *Pseudomonas aeruginosa* isolates collected in the UK in 1993. J Med Microbiol 1995;43(4):300-9.
30. Nuorti JP, Butler JC, Crutcher JM, Buevara R, Welch D, Holder P, Elliott JA. An outbreak of multidrug-resistant *pneumococcal pneumonia* and bacteremia among unvaccinated nursing home residents. N Engl J Med 1998;338:1861-8.

Banner Health System
*New directions in healthcare*

**Increase Autonomy, Enhance Your Lifestyle in Lisbon, North Dakota**

Practice rural medicine in a 19-bed hospital and newly remodeled MOB just 70 miles from Fargo, ND, and Moorhead MN, with a combined population of 160,000. Lisbon is a family-oriented community with an excellent school system. Hospital and practice are supported by Banner Health System, located in Fargo, ND, and Phoenix with 30 hospitals in 13 states. The practice requires OB and ER call rotation. Very competitive salary and great benefit package. Contact Kathy Nikunen at 800-767-7429, Ext. 7690 or send CV to:

**Banner Health System,**
**4310 17th Ave., S.W.,**
**Fargo, ND 58103**
**Fax 701-277-7636**

**kathy.nikunen@BannerHealth.com**

Clear blue skies, fresh air, wide-open spaces and clean lakes await you.



MeritCare Medical Group is seeking talented, energetic physicians to join thriving, diverse practices.

MeritCare Health System is the premiere health system between Minneapolis and Seattle. MeritCare Medical Group is a 350-physician, multi-specialty group with a strong primary care base and MeritCare Hospital is a 380-bed tertiary/trauma facility. Fargo-Moorhead, recently named an "All American City, is a tri-college community of 160,000 with excellent public and parochial schools and a park department that provides year round activities for all age groups.

We are seeking BC/BE physicians in the following specialties:

- **Adult Psychiatry**
- **Anesthesiology**
- **Cardiology & Electrophysiology**
- **Child/Adolescent Psychologist** (Detroit Lakes, MN)
- **Child/Adolescent Psychiatry**
- **Dermatology**
- **Eating Disorders Clinician** (PhD, PsyD or Masters prepared)
- **Family Practice** (Fargo, ND; E. Grand Forks, MN; Jamestown, ND)
- **General Psychology**
- **General Surgery** (Valley City, ND)
- **Hematology/Oncology**
- **Internal Medicine** (Hospitalist)
- **Interventional Radiology**
- **Neonatology**
- **Nephrology**
- **Neurology**
- **Neurosurgery**
- **Obstetrics/Gynecology** (Detroit Lakes, MN)
- **Orthopaedics** (Fargo & Jamestown, ND)
- **Otolaryngology**
- **Pediatrics**
- **Radiation/Oncology** (Bemidji, MN)
- **Reproductive Endocrinology**
- **Rheumatology**

MeritCare Medical Group
EOE/AA Employer

**Contact Jill Gilleshammer, Human Resources,**
**737 Broadway, Fargo, ND 58123**
**or call 1-800-437-4010, ext. 2338 or fax vitae to**
**701-234-2316. Visit our web site at www.meritcare.com**
Not a J1 waiver opportunity. This is not an HPSA site.


Why would you play 18 holes with just a putter?
A company that only offers you insurance is like playing 18 holes with just a putter. Midwest Medical Insurance Company gives you a full complement of "clubs"... services from expert malpractice insurance to complete employee benefits planning, strategic consulting, healthcare information systems consulting, even Internet services designed specifically for you! Master your game with MMIC as your most trusted business partner.
Call 1-800-328-5532 or visit us at www.midmedical.com
20 Years
MMIC
of Excellence
INSURANCE
EMPLOYEE BENEFITS
CONSULTING
Technology & Strategic
INTERNET SERVICES

# Medicare Managed Care Reimbursement

## *Unjust Yet Constitutional*

*Minnesota will take its case against Medicare+Choice funding formulas to appeals court and Congress.*

Margie R. Bodas, J.D.

Those who created the Medicare+Choice injustice should promptly correct it.

That was the conclusion of Senior U.S. District Court Judge Donald Alsop as he dismissed the case brought by the state of Minnesota, the Senior Federation-Metropolitan Region, and Mary Sarno against the United States and Donna E. Shalala, as Secretary of Health and Human Services. The lawsuit challenged the reimbursement formula for Medicare managed care programs—a formula that results in significant differences in the cost, type, and variety of medical services available to Medicare recipients nationwide.

In a nutshell, Medicare+Choice funding is determined county-by-county using historical, local fee-for-service data. For instance, the 1999 Medicare+Choice rate in Dade County, Florida, was $778.45 per month per Medicare patient, while the Medicare HMOs in Dakota County, Minnesota, received $394.42 per month per patient. The result is that many Florida Medicare+Choice enrollees get free coverage for prescription drugs, eyeglasses, hearing aids, and, in some instances, for health club memberships. Minnesota seniors do not receive free coverage for prescription drugs, eyeglasses, or hearing aids—let alone for health club memberships. This July Judge Alsop granted the federal government's motion to dismiss the lawsuit on the grounds that the Medicare+Choice program, while unfair, did not violate the U.S. Constitution.

### *Three Legal Challenges*

The state had asserted that its 10th Amendment rights were violated because it was required to provide supplemental funding for its senior citizens to make up for the reduced sums paid by Medicare to Minnesota participants. The state argued that Congress "essentially directed" state legislative policy and "commandeered" the state's legislative process by effectively requiring it to pass legislation and appropriate funds to meet the unfulfilled health care needs of its seniors. The state also argued that the payment formula violated its state sovereignty because it, and not Congress, would be held politically accountable for the high costs of health care within its borders.

The Senior Federation asserted that its members' Fifth Amendment rights to equal protection were violated because they received drastically reduced benefits as compared with seniors in other geographic locations.

Mary Sarno asserted that her Fifth Amendment right to travel was violated because she wanted to move from Florida to Minnesota to be near her family, but she could not do so without losing substantial health benefits. The trial court judge stated that he could not second-guess Congress and that it was his role only to determine if the laws, as written, violate the U.S. Constitution. Judge Alsop found that the reimbursement formula for the Medicare+Choice program does not.

Specifically, Judge Alsop found that the state of Minnesota was not forced by the federal government to make supplemental payments to its senior citizens, but rather that it chose to enact legislation to meet its seniors' health care needs. The state legislature may have felt morally compelled to act, but it was not legally compelled to do so by any federal law. The court further stated that since Medicare is a federal program administered by the federal government, claims that citizens would hold the state accountable for Medicare's shortcomings were not credible.

The Federation's "equal protection" argument hinged on whether there was a rational basis for the Medicare+Choice funding program. Legislative history shows that the purpose of the Medicare+Choice program was to contain costs and expand health care delivery options—which Judge Alsop found to be legitimate goals. He asserted that the real question was whether the means chosen to achieve the ends were rational. He concluded that they were rational because they allow "many (but certainly not all) elderly Americans to choose between a fee-for-service program, a traditional managed care plan, such as an HMO, or a broad range of plans comparable to those now available through private insurance." He noted that the Medicare+Choice plan also seeks to contain costs by ensuring that Medicare will not pay more to managed care organizations than it has to pay in the same county under the traditional fee-for-service program.

With regard to the right to travel, Judge Alsop found that the applica-

tion of the national payment formula resulted in equal treatment of residents of the same county—whether they were new residents or long-term residents of the county—and that the payment formula did not separate one state from another. He also found that the Medicare+Choice system did not impose an actual obstacle to the right to enter or to leave a state.

## *Congressional Action Needed*

Despite his dismissal of the Medicare+Choice lawsuit this July, the federal court judge decried the reimbursement system, which results in grossly unequal treatment of senior citizens. He called upon those who created the glaring disparities in the amount of Medicare reimbursement paid to managed care organizations throughout the country [Congress] to "promptly recognize the injustice they have created and enact legislation to correct it."

The disparity of benefits—particularly the lack of coverage for prescription drugs—has become a recurring theme of public discussion. Political campaigns tout promises to correct the Medicare+Choice inequalities and to provide prescription drug coverage. Medica, the largest HMO in Minnesota, decided to withdraw from the Medicare+Choice program (see *Minnesota Medicine*, July 2000, page 38). Medica cited low payments from the federal government as the reason it will drop its Medicare HMO plans as of January 1, 2001, a move that will affect 15,000 seniors in the Twin Cities metro area. Medica indicated that it would be willing to rejoin Medicare+Choice if Congress fixes the payment formula.

## *The MMA's Role*

Judge Alsop allowed the Minnesota Medical Association, the Hennepin Medical Society, the Ramsey Medical Society, and the American Medical Association/State Medical Society Litigation Center to file a joint amicus curiae (friend of the court) brief in support of the plaintiffs in this lawsuit. While this case was still in the district court, the trial judge agreed that the issue was of such broad public interest that he would allow certain amici to submit briefs to present a broader spectrum of views. The medical associations were allowed to participate in this case because of their significant interest in the outcome of the litigation. As care providers, the amici are uniquely familiar with the impact of the Medicare system inequities. The amici submitted their brief to shed light on the bleak realities of the disparate Medicare funding system. The associations addressed only the senior citizens' equal protection argument in their submission, leaving the issues of state funding and the right to travel to other entities. The medical associations asserted that the funding method for Medicare managed care discriminates against participants in Minnesota; its senior citizens are, at times, denied funds for proper medical care and/or face limited access to medical care because of the geographical funding inequities.

The MMA amici's primary objection to the Medicare+Choice program is that some managed care organizations receive more money from Medicare than it costs them to provide services. These organizations are then allowed to apply the excess to reduce deductibles and copayments or to offer additional benefits and services not covered by Medicare. This practice rewards traditionally high-cost and inefficient providers at the expense of more efficient providers, such as those in Minnesota.

The MMA amici contended that the goals of the funding system were not being met: It is not saving money, and health care delivery services are only being increased in certain geographic areas. The amici stated:

"[T]he United States Government Accounting Office reported in 1997 that 10 years of research on Medicare's costs under HMOs had found that the program actually increased costs—Medicare HMO enrollees would have cost Medicare less if they had stayed in the fee-for-service program. ..."

The rhetoric of "cost containment" does not provide a rational basis for a program that pays some participants enough to get free prescriptions, eyeglasses, hearing aids, and even health club memberships in the most expensive areas of the country, while not providing any of those benefits to others located in cost-effective areas of the country. At the very heart of Congress' persistent use of an inequitable funding method in 1997 was the fact that the higher-cost areas would continue to receive more Medicare HMO funds (with a minimum 2 percent increase guaranteed) than needed for basic Medicare HMO services. In 1997, Congress essentially chose to continue utilizing a funding system for Medicare HMOs knowing of the gross disparities inherent in that program. Congress effectively chose to limit benefits to certain groups of senior citizens to save dollars for the program. At the same time, Congress was claiming that it was trying to increase access to medical care throughout the nation.

The reduced Medicare+Choice payments affect senior citizens in two ways. First, many Minnesota seniors are not able to comply with their doctors' prescriptions and recommendations for treatment because of the limited reimbursement by Minnesota Medicare HMOs. Second, Minnesota seniors face reduced access to medical care providers because so many medical facilities and individual doctors have been forced out of the low-paying Medicare+Choice program. The MMA amici advised the court that 2 million fewer beneficiaries had access to a Medicare+Choice plan in 2000 than had access in 1998. This information was included in the March 2000 Report to Congress of the Medicare Payment Advisory Commission. Pertinent portions of that report were provided to the court by the amici. This decline is consistent with the trend in Minnesota, a trend that is continuing with Medica's withdrawal from the program.

Medical providers have been forced to pay greater attention to their patients' pocketbooks to assure that medical orders are being followed. A 1999 survey for the Minnesota Board of Aging found that one-fifth of low-income seniors spend more than $1,000 per year on prescription medications. Two of every five Minnesota seniors take three or

more medications daily, and half of those 75 years and older must take more than three drugs daily. The cost of prescription drugs can wreak havoc on a fixed budget. Many seniors are forced to balance the cost of medications against the expenses of daily life, including food and rent. A growing number are choosing not to buy prescribed medications or they are skipping doses to save money.

Charlie Peterson, M.D., an internist with Allina Medical Clinic in Minneapolis, stated in a *Star Tribune* article that it's frustrating for both the physician and the patients when an "identical twin who might be living in Florida might not have to worry about drug costs, dental care, or eye work that a sibling in the Twin Cities can't pay for."

MMA members are also finding that access to care has been curtailed by Medicare funding formulas. Medica, Blue Cross and Blue Shield of Minnesota, and HealthPartners have experienced Medicare+Choice network reductions. Sixty-seven of Minnesota's rural counties have no Medicare HMOs and 96 percent of rural beneficiaries in Minnesota do not have a Medicare HMO option, according to the report "Rural Neglect: Medicare HMOs Ignore Rural Communities," published by Families USA. In addition, HMOs' withdrawals from Medicare disrupt continuity of care. Even those beneficiaries who find other HMOs may discover that their doctors are not members of the new plan.

## *Waiting for a Remedy*

Medicare+Choice's funding mechanism harshly affects Minnesota seniors, yet it is quite kind to seniors in Florida and other areas of the country. However, as Judge Alsop stated, "[t]he fact that not all elderly Americans—including those in Minnesota—do not enjoy the same windfall as others is unfortunate, but not unconstitutional." Judge Alsop, in closing, threw the matter back in the lap of Congress:

"The Court's conclusion that Medicare+Choice does not violate the Constitution is not to be considered a judicial endorsement of a reimbursement system which even Defendants concede results in gross unequal treatment of senior citizens. It is hoped that those with ultimate authority to remedy this wrong—indeed those who created it—will promptly recognize the injustice they have created and enact legislation to correct it."

Both senior citizens and medical providers await congressional action.

The Senior Federation and Mary Sarno have elected to pursue a remedy within the court system. They will appeal Judge Alsop's decision to the Eighth Circuit Court of Appeals, which is expected to issue a decision next spring. **MM**

*Margie Bodas is a shareholder and the practice manager of the law firm Lommen, Nelson, Cole & Stageberg, P.A. She authored the amicus brief submitted by the MMA, HMS, RMS, and AMA in the Medicare+Choice action.*

United States Postal Service

**Statement of Ownership, Management, and Circulation**

| 1. Publication Title | 2. Publication Number | 3. Filing Date |
|---|---|---|
| Minnesota Medicine | 3 5 1 9 - 0 0 0 | 09/26/00 |
| 4. Issue Frequency | 5. Number of Issues Published Annually | 6. Annual Subscription Price |
| Monthly | 12 | $40 |

7. Complete Mailing Address of Known Office of Publication *(Not printer) (Street, city, county, state, and ZIP+4)*: 3433 Broadway Street, N .E., Suite 300, Minneapolis, MN 55413-1761 — Contact Person: Meredith McNab; Telephone: 612/378-1875

8. Complete Mailing Address of Headquarters or General Business Office of Publisher *(Not printer)*: 3433 Broadway Street, N.E., Suite 300, Minneapolis, MN 55413-1761

9. Full Names and Complete Mailing Addresses of Publisher, Editor, and Managing Editor *(Do not leave blank)*

Publisher *(Name and complete mailing address)*: Minnesota Medical Association, 3433 Broadway Street, N.E., Suite 300, Minneapolis, MN 55413-1761

Editor *(Name and complete mailing address)*: Charles B. Meyer, M.D., 3433 Broadway Street, N.E., Suite 300, Minneapolis, MN 55413-1761

Managing Editor *(Name and complete mailing address)*: Meredith McNab, 3433 Broadway Street, N.E., Suite 300, Minneapolis, MN 55413-1761

10. Owner *(Do not leave blank. If the publication is owned by a corporation, give the name and address of the corporation immediately followed by the names and addresses of all stockholders owning or holding 1 percent or more of the total amount of stock. If not owned by a corporation, give the names and addresses of the individual owners. If owned by a partnership or other unincorporated firm, give its name and address as well as those of each individual owner. If the publication is published by a nonprofit organization, give its name and address.)*

| Full Name | Complete Mailing Address |
|---|---|
| Minnesota Medical Association | 3433 Broadway Street, N.E., Suite 300<br>Minneapolis, MN 55413-1761 |

11. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages, or Other Securities. If none, check box → ☒ None

| Full Name | Complete Mailing Address |
|---|---|

12. Tax Status *(For completion by nonprofit organizations authorized to mail at nonprofit rates) (Check one)*

The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes:

☒ Has Not Changed During Preceding 12 Months

☐ Has Changed During Preceding 12 Months *(Publisher must submit explanation of change with this statement)*

| 13. Publication Title | 14. Issue Date for Circulation Data Below |
|---|---|
| Minnesota Medicine | September 2000 |

| 15. Extent and Nature of Circulation | | | Average No. Copies Each Issue During Preceding 12 Months | No. Copies of Single Issue Published Nearest to Filing Date |
|---|---|---|---|---|
| a. Total Number of Copies *(Net press run)* | | | 8,800 | 8,700 |
| b. Paid and/or Requested Circulation | (1) | Paid/Requested Outside-County Mail Subscriptions Stated on Form 3541. *(Include advertiser's proof and exchange copies)* | 8,242 | 7,942 |
| | (2) | Paid In-County Subscriptions *(Include advertiser's proof and exchange copies)* | 0 | 0 |
| | (3) | Sales Through Dealers and Carriers, Street Vendors, Counter Sales, and Other Non-USPS Paid Distribution | 0 | 0 |
| | (4) | Other Classes Mailed Through the USPS | 0 | 0 |
| c. Total Paid and/or Requested Circulation *(Sum of 15b. (1), (2),(3),and (4))* ▶ | | | 8,242 | 7,942 |
| d. Free Distribution by Mail *(Samples, complimentary, and other free)* | (1) | Outside-County as Stated on Form 3541 | 0 | 0 |
| | (2) | In-County as Stated on Form 3541 | 0 | 0 |
| | (3) | Other Classes Mailed Through the USPS | 265 | 154 |
| e. Free Distribution Outside the Mail *(Carriers or other means)* | | | 100 | 240 |
| f. Total Free Distribution *(Sum of 15d. and 15e.)* ▶ | | | 365 | 394 |
| g. Total Distribution *(Sum of 15c. and 15f)* ▶ | | | 8,607 | 8,336 |
| h. Copies not Distributed | | | 193 | 364 |
| i. Total *(Sum of 15g. and h.)* ▶ | | | 8,800 | 8,700 |
| j. Percent Paid and/or Requested Circulation *(15c. divided by 15g. times 100)* | | | 96% | 95% |

16. Publication of Statement of Ownership

☒ Publication required. Will be printed in the October 2000 issue of this publication. ☐ Publication not required.

17. Signature and Title of Editor, Publisher, Business Manager, or Owner: Charles B Meyer MD — Date: 9/26/00

I certify that all information furnished on this form is true and complete. I understand that anyone who furnishes false or misleading information on this form or who omits material or information requested on the form may be subject to criminal sanctions (including fines and imprisonment) and/or civil sanctions (including civil penalties).

North Memorial Health Care®

*An Organization of Health Care Professionals*

*North Memorial is an independent, full-service facility located in the northwest Twin Cities with more than 700 physicians in more than 40 specialties. We are known as the trauma center in the region with other notable programs including the Hubert H. Humphrey Cancer Center, North Heart Center, North Rehabilitation Center, and the Women's and Children's Center. We also strongly promote physician practice opportunities within our associated clinics, including those that are independently owned, joint ventures and hospital owned. Which means you can choose from large or small and multi or single specialty practice options in metro, suburban or rural locations. North Memorial offers very competitive salaries and excellent fringe benefits. Sounds like the perfect job, doesn't it?*

*Positions now available for BE/BC physicians in:*

- Family Practice
- OB/GYN
- Internal Medicine
- Gastroenterology
- Hematology/Oncology
- Emergency Medicine
- Pediatrics
- Orthopaedic Surgery
- Urgent Care
- Dermatology

For consideration to be a part of our team please mail, fax, or e-mail cover letter and C.V. to:

Mark A. Peterson, Physician Recruiter
North Memorial Health Care
3300 Oakdale Avenue North
Robbinsdale, MN 55422
Phone: (800) 275-4750 or (763) 520-1336
Fax: (763) 520-5997
E-mail: mark.peterson@northmemorial.com

**Physician Employment Opportunities Available at WINONA CLINIC, LTD.**

**General Internal Medicine**
** concentrated area of study in Cardiology or Gastroenterology is a plus, but NOT required*
(position available in 2001)

**Orthopedic Surgery**
(position currently available)

**Pediatrics**
(position available in 2001)

Our staff of 37+ healthcare providers is looking forward to welcoming you as you begin your practice at this thriving, independent, physician-owned, multi-specialty clinic, located in a family-oriented community situated along the Mississippi River in the beautiful bluff country of southeastern MN.

*For additional information, contact:*
**Human Resources Director**
**Winona Clinic, Ltd.**
**420 East Sarnia Street**
**Winona, MN 55887**
**Phone: 507-457-7686**
**Fax: 507-457-7672**



**Tomorrow's Doctors, Tomorrow's Cures**

For more than a century, the University of Minnesota Medical School has been an invaluable resource to the people of Minnesota and the world—educating the majority of the state's physicians, discovering new treatments in the battle against life-threatening diseases, and providing the very best patient care.

To medical students, the Minnesota Medical Foundation is a source of essential financial support. To those suffering from cancer, diabetes, heart disease, Parkinson's, and many other diseases, it's a source of hope. Support some of the brightest minds in medicine. Call the Minnesota Medical Foundation at 612-625-1440 for information.

MINNESOTA MEDICAL FOUNDATION
*at the University of Minnesota*

CAMPAIGN MINNESOTA

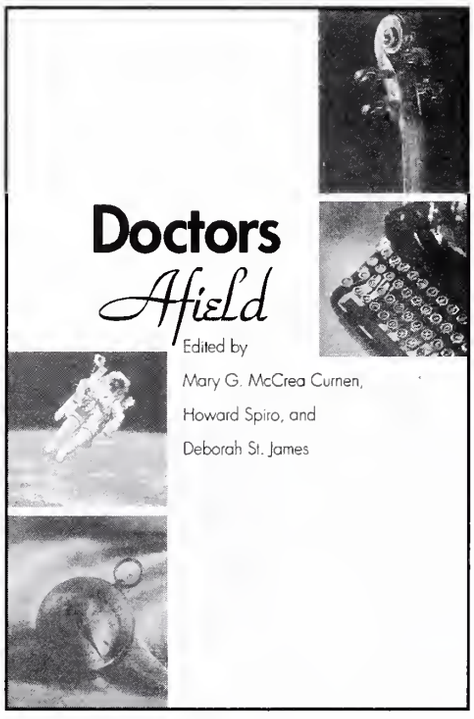
# The On-Call Muse

*"Doctors Afield" explores how some physicians incorporate creativity into their often stressful daily lives.*

Reviewed by Charles R. Meyer, M.D.

In recent years, the dictatorship of managed care has added to the traditional burdens of long hours and life-critical decisions. Stories in such medical publications as the *American Medical News* suggest that doctor disaffection is at an all-time high and that early retirements and earlier burnout are epidemic. Reportedly, more and more physicians at work are saying, "I want to be somewhere else doing something else." That sentiment is not new. In the foreward to "Doctors Afield," (Yale University Press, 1999) Thomas Duffy, M.D., quotes doctor-poet William Carlos Williams' autobiographical novel in which the protagonist doctor-writer was in a "continuously surly mood at the overbearing necessity" of practice, always yearning to be writing.

How can physicians treat the "overbearing necessity" of medical practice? "Doctors Afield," edited by Mary G. McCrea Curnen, Howard Spiro, and Deborah St. James, is a compendium of therapy by 27 physicians. Some of the featured doctors still practice medicine. Some found diversions that drew them completely away from the medical profession. Most of the activities featured are common—music, painting, sculpting, collecting. Many of the accounts are interesting but straightforward reports of the individuals' vocational and avocational careers. What makes "Doctors Afield" uncommon, fascinating, and potentially therapeutic are the insights offered about medicine and life.




Some of the doctors found that medicine was incompatible with their "afield" interests. Ray Hammond, Gloria White-Hammond, and Alan Mermann left their medical practices for the ministry. Barbara Young, trained as a psychiatrist, gradually reduced her practice to devote more time to photography. Initially plagued by the thought that photography was a frivolous hobby, she finally settled on the idea that creativity was at the core of her life: "Was I self-indulgent in choosing to be an artist? My Puritan conscience twinges, though I know I could not have done otherwise. The creative push was too strong. I do not want to be like the man who said on his deathbed, 'I've never done anything in my life that I most wanted to do!' It is better to have lived with a little guilt than with many regrets."

Others left temporarily. Michael Lacombe left his Maine internal medicine practice after he experienced success as a writer. Lacombe, a talented prose writer whose articles appear regularly in *JAMA* and the *Annals of Internal Medicine,* discovered that he had abandoned the source for his creativity and he returned to part-time practice: "I had left that front-row seat in the drama of life."

For some of the writers, their avocations are emotional escapes from their spirit-draining vocations. Eli Newburger spends his workdays treating abused children. After he leaves the horror of their domestic stories, he takes up his jazz tuba: "At five, I leave the clinic, and forty-five minutes later I pull into the parking lot outside Coffee, Tea and Melody, the pub the Black Eagles have been playing since 1995. I take off my tie, pull the tuba out of the trunk, and enter a different world. Here, injustice does not prevail, there is sadness but not misery, and every moment of improvisation carries with it a prospect of redemption. Indeed, 'mistakes' in jazz improvisation become platforms for new ideas, not catastrophes that destroy lives."

So, what to do about that "overbearing necessity" that provokes those long gazes out the clinic window?

Escape for a weekend? A week? A lifetime? Rather than escape, William Carlos Williams melded a life of practice and poetry, writing verse on slips of paper on the way to deliveries. I think Alice Levine, "singing endocrinologist," said it best: "During my first year in college, when I was searching for some concrete meaning in my education, my mother advised me that a liberal arts education would probably prepare me more for my life from five to nine than from nine to five. As I grow older, I realize that different aspects of a person's existence cannot be compartmentalized. That realization has made me more comfortable with the fusion of my two careers into one rewarding life." All the compartments in our life sit in the same human box. Enjoy all your compartments. MM

*Charles Meyer is editor-in-chief of* Minnesota Medicine.


MULTICARE ASSOCIATES OF THE TWIN CITIES

Multicare Associates of the Twin Cities, a multispecialty/multi-location clinic, located in the northern suburbs of Minneapolis/St. Paul, has available positions for BC/BE physicians in the following departments:

**Family Practice**
**Internal Medicine**
**OB/GYN**

Excellent salary/benefits package includes paid insurance, flexible benefits plan, 401K, profit sharing, continuing medical education. Shareholder status potential after one year.

Contact Jeannine Schlottman
Administrator
7675 Madison St. NE
Fridley, MN 55432
763/785-3338
www.multicare-assoc.com



**CentraCare Clinic** *is a progressive and growing 122-physician multi-specialty clinic with nine Central Minnesota sites. Our clinics offer a comprehensive income and benefits package and are conveniently located between the Twin Cities and prime Minnesota lakes area. Central Minnesota offers an outstanding lifestyle with quality schools and abundant recreational activities. CentraCare Clinic is currently recruiting for the following locations:*

**CENTRACARE Clinic**
Women & Children's Center

***Join*** *an exceptional 23-physician clinic specializing in pediatrics and obstetrics/gynecology which currently has openings in the following specialties:*

Allergy
Reproductive Endocrinologist
Pediatrics

**CENTRACARE Clinic**
Heartland

***Join*** *an experienced 6-physician clinic which currently has an opening in:*

Family Practice physician who practices Obstetrics

**CENTRACARE Clinic**
Melrose

***Join*** *6 family practice physicians who practice obstetrics in a rural clinic setting:*

Family Practice physician who practices Obstetrics

**CENTRACARE Clinic**
River Campus

***Join*** *an exceptional 65-physician specialty clinic which currently has openings in the following specialties:*

Allergy
Internal Medicine
Dermatology
Gastroenterology
Pediatric Critical Care
Infectious Disease
Rheumatology
Cardiology
Hospitalist

*For more information, please contact:*

***Karla Donlin***
*donlink@centracare.com*
***Kristine Cunningham***
*cunninghamk@centracare.com*
*Physician Recruiters*

*1406 Sixth Avenue North*
*St. Cloud, MN 56303*
***1-800-835-6652***
*www.centracare.com*

**CENTRACARE Clinic**

# *A Calendar of Continuing Medical Education Courses*

***Provided as a service of the MMA Committee on Accreditation and CME.*** For assistance with scheduling meetings or for information on future medical meetings and CME courses, please contact the MMA office: 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; 612/378-1875. For a complete listing of our calendar, visit the MMA Web site at www.mnmed.org. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

## OCTOBER 2000

Oct. 2-3 **Annual Psychiatry Review: Mood Disorders** University of Minnesota; Radisson Plaza Hotel Minneapolis, MN. CONTACT: Registrars, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636; cmereg@tc.umn.edu.

Oct. 2-6 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Oct. 3-4 **Diabetes Conference** St. Mary's/Duluth Clinic Health System; Duluth Entertainment Convention Center, Duluth, MN. CONTACT: Catherine Koski, SMDC, Education and Research, 400 East Third Street, Duluth, MN 55805; 218/786-3854.

Oct. 5-6 **Annual Forensic Science Seminar** Hennepin County Medical Center; HCMC-Pillsbury Auditorium, Minneapolis, MN. CONTACT: Gail Kraemer, 530 Chicago Avenue, M/C L870, Minneapolis, MN 55415; 612/347-7705.

Oct. 6 **Electrocardiography for Primary Care Physicians** Hennepin County Medical Center; Earle Brown Heritage Center, Brooklyn Center, MN. CONTACT: Ann Samways, 701 Park Avenue M/C 861-B, Minneapolis, MN 55415; 612/347-2078.

Oct. 6-7 **Third Annual Twin Cities Marathon Sports Medicine Conference** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55415; 612/626-7600 or 800/776-8636; cmereg@tc.umn.edu.

Oct. 7-8 **Clinical Autonomic Quantitation Workshop** Mayo Foundation; Mayo Clinic, Rochester, MN. CONTACT:

LOOKING FOR LOCUM TENENS?

LOOK FOR THE FRIENDLY DOCTOR



Whitesell
Medical Locums, Ltd.

Benefits for the Hospital/Clinic:
- Highly qualified physicians that are B.E./B.C.
- Fill your positions during illness, vacation and understaffing.
- Prevent loss of revenue.
- We handle all administrative details.
- Competitive rates

Benefits for the Physician:
- Experience a complete range of practice styles.
- Fully paid malpractice insurance
- Explore options or new services before making permanent decisions.
- A chance for senior physicians who no longer desire the responsibility of running a practice to stay clinically active.

Metro 763-682-5906
Toll Free 800-876-7171
Fax 763-684-0243
Web www.mnlocums.com

ONCOLOGIST

A prominent, Twin City metropolitan Cancer program is seeking a board-certified oncologist/hematologist to support a comprehensive, integrated, community cancer program.

If you are an experienced oncologist who would like to help create a new model of care delivery that supports physician autonomy and leadership as well as holistic patient care, please contact us. Confidentiality is assured.

*BENEFITS INCLUDE:*
- Aesthetically pleasing environment
- Autonomous practice with multi-disciplinary Team Support
- Opportunity for innovation in serving the community
- Attractive salary/incentive plan
- Relocation expenses reimbursed

Please send your CV in confidence to:
NAS REPLY SERVICE
Dept. 7mp755
8009 34th Avenue South
Minneapolis, MN 55425

Registrars, Mayo School of Continuing Medical Education, Mayo Clinic, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Oct. 12 **Confronting the Challenges of Palliative Care** St. Cloud Hospital in joint sponsorship with Douglas County Public Health/Hospice and Douglas County Hospital; Arrowwood—A Radisson Resort, Alexandria, MN. CONTACT: Education Services, Douglas County Hospital, 111 17th Avenue East, Alexandria, MN 56308; 320/762-6094.

Oct. 12-15 **Eighth Annual Women Physicians' Retreat** North Memorial Health Care; Madden's Resort, Brainerd, MN. CONTACT: Barbara Greene, North Continuing Education, 3500 France Avenue North, Suite 102, Robbinsdale, MN 55422-2806; 763/520-5942; barbara.greene@northmemorial.com.

Oct. 13 **Managing Challenging Situations in Brain Injury Care** HealthEast Care System; Sheraton Midway Hotel, St. Paul, MN. CONTACT: Cheri Daniel, 1700 University Avenue West, St. Paul, MN 55104; 651/232-5225; cdaniel@healtheast.org.

Oct. 13 **Dermatology Update** Institute for Research and Education; Naegele Auditorium, St. Louis Park, MN. CONTACT: Mary White, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 952/993-3531, whitemj@hsmnet.com.

Oct. 13-14 **Education for Physicians on End-of-Life Care** St. Cloud Hospital in joint sponsorship with Douglas County Public Health/Hospice and Douglas County Hospital; Arrowwood—A Radisson Resort, Alexandria, MN. CONTACT: Education Services, Douglas County Hospital, 111 17th Avenue East, Alexandria, MN 56308; 320/762-6094.

Oct. 20 **Perspectives on End-of-Life-Care** HealthEast Care System; HealthEast Woodwinds Health Campus, Woodbury, MN. CONTACT: Christine Keane, HealthEast St. John's Hospital, Medical Staff, 1517 Beam Avenue, Maplewood, MN 55109; 651/232-7180; ckeane@health east.org.

Oct. 20 **Caring for Torture Survivors: Building Networks of Support** Center for Victims of Torture; Earle Brown Heritage Center, Brooklyn Center, MN. CONTACT: HealthPartners Institute for Medical Education, Registrar, Continuing Professional Development, P.O. Box 1309, Minneapolis, MN 55440-1309; 651/221-3992; after 9/1/00: 952/883-6225; www.cvt.org.

Oct. 27-28 **Thyroplasty: Theory and Practice** Minnesota Medical Association with Mayo Clinic Department of Otorhinolaryngology; Mayo Clinic, Rochester, MN. CONTACT: Barbara McLeod, Matrix Meetings, Inc., P.O. Box 1026, Rochester, MN 55905-1026; 507/288-5620.

Oct. 27-28 **Orthopedic Update** Institute for Research and Education; Radisson Hotel and Conference Center, Plymouth, MN. CONTACT: Mary White, Continuing Med-

## MMA-Accredited CME Sponsors

❧ The Minnesota Medical Association is the accrediting agency for Minnesota institutions that regularly sponsor continuing medical education activities for local physicians. ❧ Accreditation gives CME sponsors responsibility for conducting high-quality CME programs and for designating credit for CME activities. ❧ CME programs must comply with the MMA's "Essentials for the Accreditation of Sponsors of Continuing Medical Education" and the ACCME's "Standards for Commercial Support of CME" and "Standards for Enduring Materials." ❧

The MMA, through the Committee on Accreditation and CME, has granted continued accreditation to

- ❧ Albert Lea Medical Center—Mayo Health System, Albert Lea
- ❧ Fairview Ridges Hospital, Burnsville
- ❧ Regina Medical Center, Hastings
- ❧ St. Mary's/Duluth Clinic Health System, Duluth

For more information on the MMA accreditation program, please call Jane Phillip at the MMA, 612/378-1875 or 800/DIAL-MMA, or visit the MMA's Web site at [www.mnmed.-org/ppe/accred.html].

**80 years and Still Growing.**

*We're looking for BC/BE physicians for the following positions:*

**Internal Medicine/Family Practice**—We have multiple opportunities available in our internal medicine and family practice departments.
Mankato Clinic is a multi-specialty group practice with 75+ providers and a service area population of over 250,000. Our scenic riverside community has big city amenities, shopping and restaurants all without the traffic hassles.

**Radiology**—Exceptional opportunity to join our Radiology Department. Brand new volume acquisition multi-detector spiral CT scanner necessitates expanding this well established department. This opportunity also includes reading MRI from the region's two newest open MRI. Desirable call schedule provides time to enjoy life in this scenic river valley community.

We offer a guaranteed first year salary with incentive pay plan. Our full range of benefits includes a generous retirement plan and liberal time-off policy.

**For more information call Dr. Byron C. McGregor, Medical Director at 507-389-8548 or Dennis Davito, Director Physician Recruitment, 507-389-8654 or send CV.**

**Mankato Clinic**
**1230 East Main Street**
**Mankato, MN 56002-8674**
**FAX: 507-388-3401**

ical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 952/993-3531; whitemj@hsmnet.com.

Oct. 28 **Breast Cancer: A Survivor's Journey** HealthPartners Institute for Medical Education; Continuing Professional Development; Four Points Sheraton Hotel, Minneapolis, MN. CONTACT: Marilyn Horstman, Continuing Education Department, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992; Marilyn.J.Horstman@HealthPartners.com.

## NOVEMBER 2000

Nov. 2 **Geriatric Care for the Primary Care Physician** Mayo Foundation; Leighton Auditorium, Siebens Education Building, Mayo Foundation, Rochester, MN. CONTACT: Registrars, Mayo School of Continuing Medical Education, Mayo Clinic, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Nov. 2-4 **Annual Orthopaedic and Trauma Seminar** Hennepin County Medical Center; Minneapolis Convention Center, Minneapolis, MN. CONTACT: Claudia Miller, 701 Park Avenue, M/C 862-B, Minneapolis, MN 55905; 612/347-4220.

Nov. 3 **A Global Affair: Caring for Immigrants and Refugees** Hennepin County Medical Center; HCMC-Pillsbury Auditorium, Minneapolis, MN. CONTACT: Robin Hoppenrath, 701 Park Avenue, M/C 861-B, Minneapolis, MN 55422; 612/337-7128.

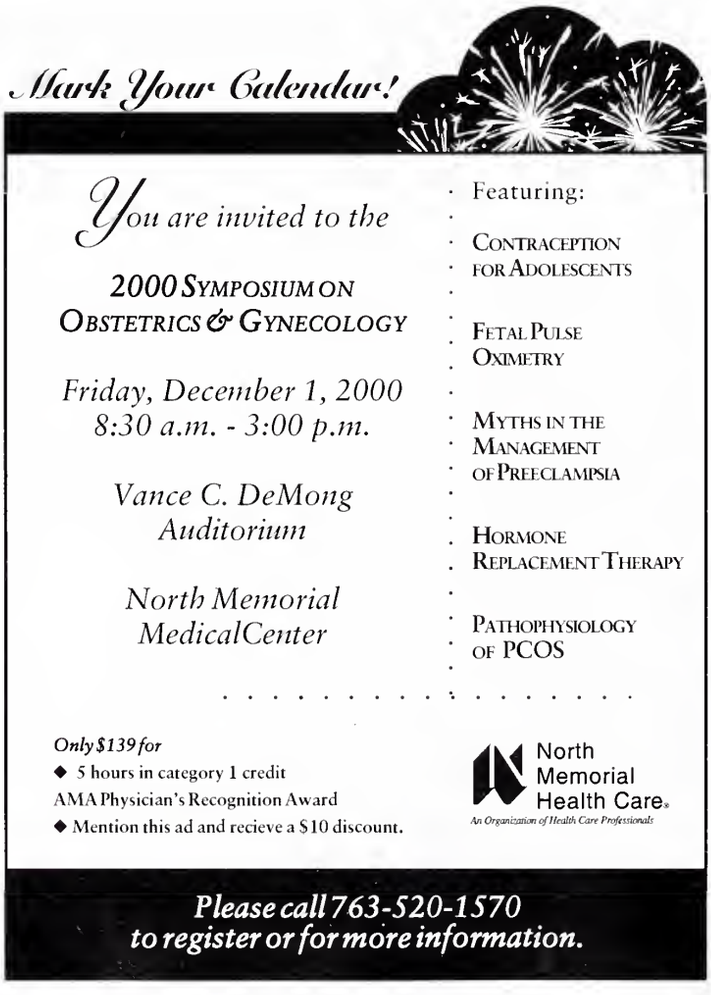
Nov. 3 **Osteoporosis—Preventing the First and Subsequent Fractures—New Medical and Surgical Treatment Strategies for High Risk Patients** HealthEast Care System; St. Paul Science Center, St. Paul, MN. CONTACT: Cheri Daniel, 1700 University Avenue West, St. Paul, MN 55104; 651/232-5225; cdaniel@healtheast.org.

Nov. 3 **Spiritual Care Research: Applications to Practice** Mayo Continuing Nursing Education; Mayo Clinic, Rochester, MN. CONTACT: Mayo Continuing Nursing Education, Eisenberg S-41, 200 First Street SW, Rochester, MN 55905; 800/545-0357.

Nov. 3 **Women's Health: New Information for a New Century** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Sharon Kopp, HealthPartners-IME, 640 Jackson Street, St. Paul, MN 55101; 651/291-5536.

Nov. 3 **The First 24 Hours** Institute for Research and Education; Naegele Auditorium, St. Louis Park, MN. CONTACT: Mary White, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 952/993-3531, e-mail: whitemj@hsmnet.com.

Nov. 6-10 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.




Nov. 9-10 **Critical Care 2000** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Marilyn Horstman, HealthPartners, Continuing Medical Education, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.

Nov. 9-11 **Radiology 2000** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636; cmereg@tc.umn.edu.

Nov. 10 **Annual Minneapolis/St. Paul Diabetes Forum** Hennepin County Medical Center; Radisson Conference Center, Plymouth, MN. CONTACT: Robin Hoppenrath, 701 Park Avenue, M/C 861-B, Minneapolis, MN 55415; 612/337-7128.

Nov. 11 **Minnesota Society of Neurologic Sciences Fall Seminar 2000–Cerebrovascular Disease: An Update** Minnesota Medical Association in joint sponsorship with Minnesota Society of Neurological Sciences; Bloomington, MN. CONTACT: Robyn Lampright, Minnesota Society of Neurological Sciences, 433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/362-3738; rlampright@mnmed.org.

Nov. 17-18 **Primary Care Ortho** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Marilyn Horstman, HealthPartners-IME, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.

Nov. 17-18 **14th Annual Primary Care Update** Institute for Research and Education; Radisson Hotel and Conference Center, Plymouth, MN. CONTACT: Mary White, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard, St. Louis Park, MN 55416; 952/993-3531, whitemj@hsmnet.com.

## DECEMBER 2000

Dec. 1 **33rd Annual Symposium on Obstetrics and Gynecology** North Memorial Health Care; North Memorial Medical Center, Robbinsdale, MN. CONTACT: Stephanie Dean, 3500 France Avenue North, Suite 102, Robbinsdale, MN 55422-2806; 763/520-7274; Stephanie.Dean@northmemorial.com.

Dec. 4-8 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Dec. 7-8 **22nd Annual Cardiovascular Conference** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Marilyn Horstman, HealthPartners, Continuing Medical Education, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.


Picture your future with ACMC...
We think you'll fit right in!

ACMC is a 100+ multi-specialty group providing primary and secondary care in over 23 specialties in a network of 10 clinics in Southwestern and West Central Minnesota.

ACMC offers a secure practice among a well-established and respected physician owned group with a very competitive financial and benefits package.

Positions now available for BE/BC physicians in:

Benson: *Family Practice*

Litchfield: *Family Practice*

Marshall: *Family Practice, Internal Medicine, OB/Gyn*

Redwood Falls: *Family Practice, Med/Peds*

Willmar: *Family Practice, Internal Medicine, Oncology, Orthopaedic Surgery, Gastroenterology, Anesthesia, Urology, Psychiatry, Dermatology*

*Please contact:*

Kari Bredberg, Physician Recruitment
(320) 231-6366 • karib@acmc.com
Affiliated Community Medical Centers
101 Willmar Avenue SW • Willmar, MN 56201
www.acmc.com

Affiliated COMMUNITY Medical Centers, P.A.



The best of both — A place to practice. A place to live.

Owatonna Clinic offers physicians local practice autonomy and access to Mayo Clinic's expertise in clinical medicine, education and research.

Opportunities to join our team are available in:

- Dermatology
- Family Medicine
- Internal Medicine
- Obstetrics and Gynecology
- Orthopedic Surgery

To learn more about our wonderful city and clinic, visit us at owtclinic.org

**Contact David Berg at 507-455-4441 or berg.david2@mayo.edu**

Owatonna Clinic
*Mayo Health System*

Dec. 8 **9th Annual Family Practice Update** Hennepin County Medical Center; Sheraton Inn Airport, Bloomington, MN. CONTACT: Robin Hoppenrath, 701 Park Avenue, M/C 861-B, Minneapolis, MN 55415; 612/337-7128.

JANUARY 2001

Jan. 19-21 **Mid-Minnesota Medical Symposium on Primary Care** St. Cloud Hospital; Holiday Inn Hotel & Suites, St. Cloud, MN. CONTACT: Sandi Theisen, St. Cloud Hospital, CME Division of Medical Staff Services, 1406 Sixth Avenue North, St. Cloud, MN 56301; 320/251-2700 ext. 54551.

FEBRUARY 2001

Feb. 5-9 **Mayo Foundation Presents: Gastroenterology and Hepatology for the 21st Century** Mayo Foundation; Hapuna Beach Prince Hotel, Mauna Kea Resort, Kohala Coast, Big Island of Hawaii. CONTACT: Registrars, Mayo Foundation, Mayo School of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Feb. 20-24 **Whitefish 2001: A Primary Care Odyssey** MeritCare Health System and UND School of Medicine and Health Sciences; Grouse Mountain Lodge, Whitefish, MT. CONTACT: Cheri Rodenburg, MeritCare Critical Care Services, 720 4th Street North, Fargo, ND 58122; 701/234-6913.


*Minnesota Medicine*

AN EXCELLENT ADVERTISING INVESTMENT

Target marketing pays real dividends with your space advertising in ***Minnesota Medicine,*** the official journal of the Minnesota Medical Association.

Delivered directly to offices, hospitals, and clinics, ***Minnesota Medicine*** reaches your key clients and prospects in their business setting.

***For complete advertising information contact:***

Michele Holzwarth
Minnesota Medicine
3433 Broadway Street NE, Suite 300
Minneapolis, Minnesota 55413
612/623-2880
800/DIAL-MMA (342-5662)

***Dermatology, General Surgery, Internal Medicine, Neurology and Pediatrics***

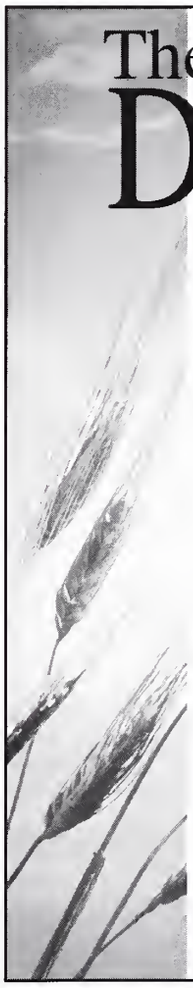
There are immediate openings at Brainerd Medical Center for the following specialties: Dermatology, General Surgery, Internal Medicine, Neurology, and Pediatrics.

**Brainerd Medical Center, P.A.**
- 41-Physician independent multi-specialty group
- Located in a primary service area of 50,000 people
- Almost 100% fee-for-service
- Excellent fringe benefits
- Competitive compensation
- Exceptional services available at 162-bed local hospital, St. Joseph's Medical Center

**Brainerd, Minnesota**
- Surrounded by the premier lakes of Minnesota
- Located in central Minnesota less than 2½ hours from the Twin Cities, Duluth and Fargo
- Large, very progressive school district
- Great community for families

**Call collect to Administrator:**
Curt Nielsen
(218) 828-7105 or (218) 829-4901
2024 South 6th Street
Brainerd, MN 56401
email: bmc@brainerd.net
internet:www.brainerdmedicalcenter.com

BMC



There Is A
Difference

Sioux Valley Hospitals and Health System is seeking family physicians for rural and metro practice sites in South Dakota, southwest Minnesota and northwest Iowa. Let us present you with opportunities in communities with strong economies, excellent schools and little crime. No fees. To find an opportunity right for you, call or send CV:

Physician Placement Program
1100 S. Euclid Avenue
PO Box 5039
Sioux Falls, SD 57117-50396
800-468-3333 or 605-333-7393
Fax: 605-333-1562

Sioux Valley
*Hospitals & Health System*



Introducing the
# Thermal Brewing System
from US Office Products and MMBR

# "Coffee, anyone?"

**Enjoy fresh great-tasting coffee all day long. Here are a few reasons to consider adding the thermal brewing system and the US Office Products coffee service to your clinic:**

CALL 651/688-9384

TODAY FOR MORE

INFORMATION ON HOW TO

GET GREAT-TASTING

COFFEE IN YOUR CLINIC'S

BREAKROOM TOMORROW.

ASK FOR ANY OF

THESE MMA ACCOUNT

REPRESENTATIVES:

ERIC WICKAM,

MARIE CHRISTIANSON,

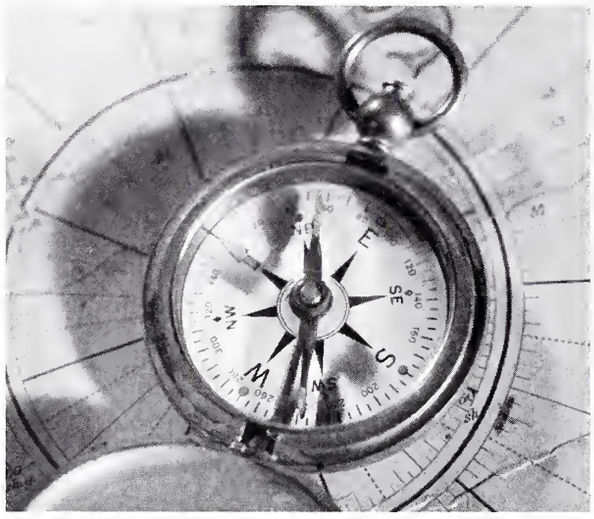
OR JIM CHRISTIANSON.

- ☑ Choose from an extensive line of excellent coffees ranging from as low a **4¢ per cup** to 12-13¢ per cup (for Starbucks). This offer provides MMBR Members special pricing lower than the already low pricing given any other US Office Products customers on coffee and related breakroom products.
- ☑ The patented thermal carafes provide hot fresh coffee for 12+ hours without using burners or additional heating.
  - No burnt-tasting coffee
  - No wasted, thrown-away coffee
  - No burners left on overnight
- ☑ Qualifying practices will receive a free coffee tasting and a free pack of Starbucks coffee.
- ☑ Great breakroom products when you need them; order your coffee over the phone or the internet and enjoy it in your breakroom tomorrow.

US Office Products℠

MMBR
Minnesota Medical Business Resources
Owned By MMA & HMS

# Confused about purchasing or leasing your next vehicle?



# Let us point you in the right direction with group purchasing.

- Lease or purchase all makes and models of new foreign and domestic cars and trucks.
- Fleet pricing verses retail pricing
- All rebates and special finance programs passed on to the buyer to reduce the overall cost.
- Will provided lease quotes from the best multiple lease sources including the manufacturer's lease program
- One stop vehicle shopping by phone, fax or web page < www.mnmed.org/mmbr >
- Take advantage of over 30 years of experience in the industry and experience working with medical professionals and their employees



## A Vehicle Buying and Leasing Program With Special Benefits

Remember, whether you purchase or lease, MMBR Motor Services and Creative Leasing, Inc. will help you get the most vehicle at the best price. We'll even help you sell your old auto.

Use your money wisely. For personal attention and lease or purchase information on any vehicle, call **612/623-2860**, or toll-free **800/298-MMBR**.

MMBR

Minnesota Medical Business Resources
Owned By MMA & HMS

MMBR Motor Services is a service of Minnesota Medical Business Resources, a physician-owned corporation of your medical association.

# *Physician Opportunities and Miscellaneous Listings*

***Classified rates are $2.50 a word (300-word maximum). Minimum monthly charge is $50; with box number $5 additional. Ads will not be accepted by phone.***

- Placement of ads must be made six weeks before the date of publication, e.g., October 15 for December ad. Please send ad requests to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; or by fax, 612/378-3875; or e-mail, mm@mnmed.org.
- The publisher reserves the right to decline or withdraw advertisements. The publisher is not responsible for clerical or typographical errors and is not permitted to divulge the identity of advertisers who have replies sent to box numbers.
- Cancellation of ads must be made by the first of the month preceding month of issue.

---

**Quello Clinic, Ltd.:** Well-established, south suburban, physician-owned group seeking part/full-time OB/Gyn and family practice physicians to work in our regular day clinic. We are also seeking physicians to work at our urgent care sites. Contact medical director at 952/985-8931, or write Quello Clinic, Ltd., 7801 East Bush Lake Road, Suite 300, Bloomington, MN 55439. (6/00-R)

---

**Fairview Health Services:** Practice opportunities in urban, suburban, and semirural locations. Moonlighting and part-time urgent care opportunities also available. Please contact Fairview Physician Recruitment and Retention at 612/672-2288, 800/842-6469, fax: 612/672-2986, e-mail: recruit1@fairview.org or visit our Web site at www.fairview.org/recruitment. (6/00-R)

---

**Olmsted Medical Center** is seeking BC/BE physicians in family medicine, emergency medicine, and dermatology to join our 75-physician multispecialty group. Great opportunity for well-trained physicians to join a family-friendly group in a dynamic, progressive practice. In addition to its main office and hospital in Rochester, the Olmsted Medical Center system includes 11 branch office locations in southeastern Minnesota. Excellent salary and benefits, including health benefits, malpractice, spending accounts, educational funds, profit sharing, 401(k)/403(b), and relocation assistance. Send CV to Lois Till-Tarara, Olmsted Medical Center, 1650 Fourth Street SE, Rochester, MN 55904; 507/287-2430. Fax: 507/285-8973. (*3/99-R)

---

## BUFFALO CLINIC, P.A.

The Buffalo Clinic and Monticello Clinic, an independent physician owned practice is seeking to ad BE/BC physicians in:

- **Internal Medicine**
- **Pediatrics**

Buffalo Clinic, P.A. is a 27-physician multispecialty group with 2 practice locations, Monticello and Buffalo. Both locations are located adjacent to the hospital.

Buffalo Clinic guarantees salary for the first 2 years with partnership after 2 years, excellent contract benefits.
If interested, contact:

**Linda Dircks, Administrator**

*Buffalo Clinic*

**1700 Hwy 25 North, Buffalo, MN 55313**
**Phone: 763/287-6877 Fax: 763/287-6805**

## FAMILY PRACTICE

Northwest *Family Physicians*

Dynamic, independent 3 location, single-specialty practice in northwest Minneapolis suburbs is seeking additional associates for its Crystal and Plymouth sites. OB is available if desired.

- ◆ Partnership opportunity after 2 years
- ◆ Competitive salary with incentives
- ◆ Excellent benefits, 401k/employer paid pension
- ◆ Practice at own site/one hospital
- ◆ Physician-owned

***Please contact or fax CV to:***
*Chris Bennett, M.D.*
*5502 W. Broadway, Suite 200,*
*Crystal, MN 55428*
*763-287-6500 ◆ fax 763-531-2105*
*visit our website at* ***www.NWFPC.com***

**MDsearch** assists medical groups and hospitals in their recruiting efforts. For confidential information on opportunities in the Upper Midwest, send CV and/or call collect Mary Jo Cordes, MDsearch, P.O. Box 21507, St. Paul, MN 55121; 651/454-7291. Fax: 651/454-7277. (2/93-R)

**Medical Director:** For rehabilitation/physical therapy clinic in St. Paul. Opportunity to grow with practice. No on call or weekends. Call Midway Injury Management. 651/644-0210. (2-10/00)

**Falls Medical Search Seeks Physicians** for practice opportunities locally and nationally. To explore new practice options confidentially, send your CV or call Pat Falls, Falls Medical Search, 34 Forest Dale Road, Minneapolis, MN 55410; 612/922-0207 or 800/383-8916. (*5/92-R)

**The Minnesota Recruiter** works with Minnesota practices to staff their physician opportunities and with physicians seeking new opportunities. Through our nationwide affiliate offices, we can provide attractive opportunities in nearly all parts of the country. Access these opportunities online at www.mnrecruiter.com or contact us confidentially at 800/967-2711, or by fax at 320/587-7252. (6-1/01)

**Weber Law Office:** Focusing on the professional and personal legal needs of the health professional. Former attorney for the Board of Medical Practice. Over six years with the Minnesota Attorney General's Office. Committed to the best legal outcome possible through diligence and resourcefulness. 612/296-8080; www.weber-law.com. (6-12/00)

**Full- or Part-time BC/BE Radiologist** to join 36-physician multispecialty group. Excellent salary/benefit package. No J-1 Visa. Contact James Matter, M.D., or Scott Swenson, M.D., 218/736-8000, 615 South Mill Street, Fergus Falls, MN 56537. EEO/AA (3-11/00)

**Urgent Care Physician:** HealthEast Care System is seeking physicians for part-time evening and weekend urgent care shifts at its South St. Paul location. Interested family practice, emergency medicine, or internal medicine physicians should contact Karen Karlinski, M.D., HealthEast Urgent Care, 724 19th Avenue North, South St. Paul, MN 55075, 651/232-6375. (10/00-R)

**Medical Director:** For rehabilitation/physical therapy clinic in St. Paul. Opportunity to grow with practice. No on call or weekends. Call Midway Injury Management. 651/644-0210. (2-10/00)

Caring For Our Community
Affinity

*Affinity Medical Group is an integrated health care organization providing quality care and services throughout our three hospitals and 17 clinic locations in East Central Wisconsin. Currently we are seeking BC/BE Physicians in the following specialties:*

- **Anesthesiology**
- **Dermatology**
- **Internal Medicine**
- **Oncology**
- **Orthopaedics**
- **Psychiatry**
- **Pediatrics**
- **Family Practice**
- **Hospitalist**
- **Radiology**
- **Surgery (with vascular training)**

The Fox Cities communities which include Appleton, Oshkosh and Neenah, offer a host of cultural opportunities and a chance to practice medicine in smaller settings that have everything big city medicine offers. Once here, we're sure you'll agree that these practice locations are some of the most attractive places to live in the Midwest.

For more information on Affinity Medical Group, please contact or send your CV with 3 letters of reference, to: Cookie Fielkow, Physician Recruitment, **800-722-9989,** e-mail: cfielkow@affinityhealth.org

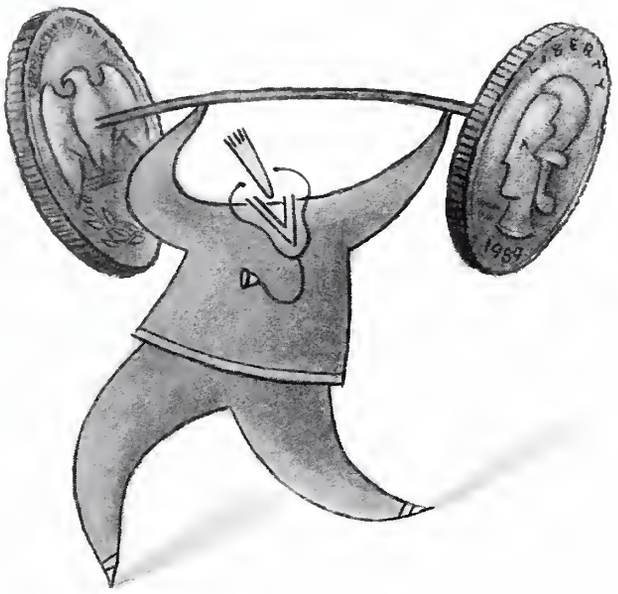
Affinity Medical Group
A MEMBER OF AFFINITY HEALTH SYSTEM

**P.O. Box 8005 • Menasha, WI • 54952-8005**

OCTOBER 2000 INDEX TO ADVERTISERS

Acute Care, Inc. ..... 8
Affiliated Community Medical Centers ..... 69
Affinity Medical Group ..... 74
Air Force Health Professional ..... 49
Allina Continuing Medical Education ..... 45
Aspen Medical Group ..... 16
Banner Health System ..... 58
Brainerd Medical Center ..... 45, 70
Buffalo Clinic ..... 73
CentraCare Clinic ..... 65
Custom RX Compounding ..... 16
Emergency Practice Associates ..... 5
Global Holidays ..... 43
HealthPartners CME ..... 5
Hennepin County Medical Center ..... 17
Lakeview Medical Clinic, PA ..... 45
Management Services by Choice ..... 20
Mankato Clinic ..... 67
Medical Protective Co. ..... 9
MeritCare ..... 58
MICOA Mutual Insurance Company of America ..... Cover 2
Midwest Medical Insurance Company ..... 32, 59
Minnesota Medical Foundation ..... 63
Minnesota Physicians Foundation ..... 23
MMBR ..... 52, 71, 72, 75
Montevideo Clinic ..... 68
Multicare Associates of the Twin Cities ..... 65
North Memorial Healthcare ..... 63, 68
Northwest Family Physicians ..... 73
Owatonna Clinic-Mayo Health Systems ..... 69
Regions Hospital ..... Cover 4
Sioux Valley Hospital and Health System ..... 70
St. Cloud Hospital Mayo FP Residency ..... 5
St. Vincent Hospital/Prevea Clinic ..... 49
University of Minnesota ..... Cover 3
University of Minnesota Department of Medicine ..... 66
Wally McCarthy Cadillac ..... 3
Whitesell Medical Locums, Ltd. ..... 66
Winona Clinic, Ltd. ..... 63

# We've got the strength in numbers to help you with your office supply needs.



Office Depot and
Minnesota Medical Business Resources
present...

## The Office Supply Program

Minnesota Medical Business Resources and Office Depot are pleased to offer the following special program for members of the Minnesota Medical Association and their clinics.

The Office Supply Program includes:

- Up to 80% off list price on the items most frequently ordered by medical clinics.
- Average of 45% off list price on all other stocked items.
- 750 items of furniture available for next day delivery.
- Easy ordering via Fax or Internet—customized forms developed for your clinics based upon frequently ordered items.
- Retail market pricing on electronics, business machines and software.
- FREE next business day delivery to all of Minnesota.
- Retail store purchasing cards for your emergency needs, copies, specials. *Receive your contract pricing at our retail stores.*
- Quarterly rebate of 3% on stocked item purchases.

To establish an account or if you have questions, please contact:

**Brad Broman**
**Account Manager**
**Direct line: 612-513-4056 • Outstate: 800-392-4777 x4056**
**email: bbroman@officedepot.com**

Office DEPOT®
Business Services Division

MMBR
Minnesota Medical Business Resources
Owned By
MMA & HMS

# Hurry Up and Wait

*In writing, that can be a good thing.*

James Kaufmann, Ph.D.

It may seem paradoxical, but both speed and delay are allies of writers. The former helps during writing, the latter during revision.

## *Bleeders, Plodders, and Sprinters*

For some writers, the first draft is the final draft. They revise as they write, and when they reach the end, the draft requires proofreading only. I've heard such writers described as "perfect drafters." In the extreme, they won't write the second paragraph until the first paragraph is perfect, or the second sentence until the first sentence is perfect. This composing style can work for e-mails and short memos. But this painstaking approach doesn't work well for longer pieces and surely can't be much fun. In "Successful Writing, 4th ed." (W. W. Norton, 1998), Maxine Hairston describes these writers as "bleeders."

Other writers—whom Hairston calls "plodders"—do a fair amount of revising as they write the first draft. They evaluate and make substantive changes, but don't expect the first draft to be the final draft, although they believe it will closely resemble it. They concede the possibility that the next draft will require major changes, and, if it does, they will make them. They hope, of course, that it won't.

Some writers—Hairston's "sprinters"—rapid-write the first draft. These writers know they will be making major changes in subsequent drafts, so they don't spend much time writing the first one. They manage to silence or ignore the internal editor who criticizes words and sentences as they appear.

Here's why you should emulate the sprinters. The more time you spend producing the first draft, the less inclined you may be to take full advantage of the next stage of the writing process, revision. Revision is arguably the most powerful, and possibly the most enjoyable, stage of the process.

## *When to Revise*

Ideally, revision should be done well after you write the first draft. A professor once suggested that the passage of time allows a writer to forget his or her intended meaning and to come to the text more as the reader will: deprived of knowledge about the writer's intent. Perhaps, as I have, you've had the experience of writing something you thought was clear but later made you wonder, "What the heck was I trying to do there?" Time-induced amnesia makes this useful reaction possible.

The passage of time can also confer emotional or intellectual distance from a piece of writing. A point you cared about passionately while in the heat of writing may seem less important, or even irrelevant, after the text has had time to cool. And if, as some people believe, we subconsciously work on, or "incubate," our texts after we have put them away, your best arguments may not be apparent to you until you've gotten away from the page. A line of argument that seemed peripheral while you were writing the first draft may, in the light of a new day, seem central. Also, gaps in your argument may become obvious after time has passed.

How much time should pass before revision? The ideal (in my opinion) is one to two weeks, but a fast-approaching deadline can shorten the time between drafting and revision to about 10 minutes (try to set a production schedule that includes a hiatus between drafting and revision). Too much time between drafting and revision, however, can check your forward momentum (as a safeguard against this, work on tasks related to the project that don't involve writing, such as verifying sources). If possible, take a short break before revising; you've earned it, and it will help you during revision.

Next time: How to revise. Preview: Be ruthless. **MM**

*James Kaufmann is an editor in the Section of Scientific Publications at Mayo Clinic, in Rochester.* *Copyright 2000 Mayo Foundation*

ALSO INSIDE: DIAGNOSING & TREATING ASBESTOSIS ◆ POLICING THE MEDICAL PROFESSION

# Minnesota Medicine

A JOURNAL OF CLINICAL AND HEALTH AFFAIRS




HS/HSL
UNIVERSITY OF MARYLAND AT
BALTIMORE
STACKS
NOV 27 2000
STACKS
REC'D
NOT IN CIRC.

## WEIGHING IN: THE FIGHT AGAINST FAT

## The biology behind obesity

NOVEMBER 2000

11968-40922 Exp: 12/2000
Univ. of Maryland
Health Sciences Lib.
601 W Lombard St
Baltimore, MD 21201

# SELECTION & SAVINGS

## THE POWER OF &

THE FUSION OF DESIGN & TECHNOLOGY




SEVILLE



DEVILLE

**THERE ARE MANY REASONS WHY WE ARE NUMBER ONE IN SALES FOR THE NINTH CONSECUTIVE YEAR.**

**TEST DRIVE A NEW CADILLAC TODAY!**



## Wally McCarthy's Cadillac

ON HIGHWAY 36, JUST WEST OF ROSEDALE • www.mccarthyauto.com • 651.636.6060

---

# // NOW THERE'S A HUMMER DEALER IN MINNESOTA. IF YOU COME HERE FIRST, YOU CAN GO ANYWHERE YOU WANT TO.



**IN STOCK:**

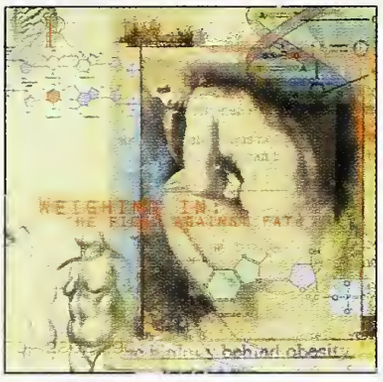
1 NEW 1999 WAGON
1 NEW 2000 HARD TOP
3 NEW 2000 OPEN TOPS
10 NEW 2000 WAGONS
1 USED 1999 OPEN TOP
1 USED 1995 TWO MAN WITH UTILITY BOX

## Wally McCarthy's HUMMER®

ON HIGHWAY 36, JUST WEST OF ROSEDALE • www.mccarthyauto.com • 651.636.6060

# Minnesota Medicine

Published monthly by the Minnesota Medical Association



COVER

*Illustration by Stephanie Dalton Cowan.*

DEPARTMENTS

2 ..... Editor's Note

33 ..... MMA News & Views

63 ..... CME in Minnesota

67 ..... Classified Ads

71 ..... Index to Advertisers

BOOK REVIEW

**Policing the Medical Profession,** a review by Charles R. Meyer, M.D., page 59.

*Two books, "Blind Eye: How the Medical Establishment Let a Doctor Get Away with Murder" by James Stewart and "State Medical Boards and the Politics of Public Protection" by Carl Ameringer, reveal weaknesses in a system designed to protect both physician rights and public safety.*

FACE TO FACE

6 **A Quiet Crusader Puts Faith in Science** ..... Susan Gaines
*Obesity researcher Charles Billington's passion for science breeds compassion for patients.*

PERSPECTIVES

10 **Measure for Measure** ..... Kathleen Bradley
*Gastric-bypass surgery puts an end to yo-yo dieting, severe pain.*

COVER STORIES

14 **Survival of the Fattest** ..... Sue Goetinck
*Using research into the role of biology in obesity, scientists and drug companies hope to find ways to short-circuit our propensity to put on pounds.*

17 **In Battle Against Obesity, Biochemists Are Warriors** ..... Tom Siegfried

CLINICAL & HEALTH AFFAIRS

21 **Pharmacological Treatment of Obesity: Past, Present, and Future** ..... Mary Wangsness, M.D.

28 **The Diet Prescription for Obesity: What Works?** ... Karen B. Holtmeier, M.P.H., R.D., L.N., and Harold C. Seim, M.D., M.P.H.

43 **Successful Losers: The Habits of Individuals Who Have Maintained Long-term Weight Loss** ..... Mary Lou Klem, Ph.D.

PUBLIC HEALTH REPORT

47 **Diagnosis and Management of Asbestosis** ... Ola Kuku, M.D., M.P.H., and David L. Parker, M.D., M.P.H.
*Physicians should be prepared to properly diagnose and competently care for patients with asbestos-related illnesses.*

MEDICINE LAW & POLICY

51 **Complaints to the Minnesota Board of Medical Practice in FY 2000** ..... Kent G. Harbison, J.D., and Cynthia Jokela Moyer, J.D.
*The Minnesota Board of Medical Practice has seen a reassuring decrease in complaints in recent years.*

55 **Peer Review: Can the Board of Medical Practice Subpoena Your Files?** ..... Lora Esch Mitchell, J.D., David P. Bunde, J.D., Margo S. Struthers, J.D., Kari L. Wraspir, J.D., and Rebecca Egge Moos, J.D.
*The state appeals court maintains that peer review records are confidential.*

# Over Par

Treating obesity is a lot like playing golf. The lower the numbers, the better the outcome. Lots of experts are willing to share their latest tricks for improvement. Success is rare and frustration is common.



The same exasperation that drove me away from the game is echoed in the sagas of disappointment told by patients who have tried everything imaginable to lose weight. These patients recount trials of supplements and pills; diets with high, low, and medium carbohydrates, fats, and proteins; and programs with prepackaged food and pep-fest motivational sessions. Short-term weight loss with long-term failure is the recurrent theme. Guilt and hopelessness are the prevailing emotions for patients.

*"The science of obesity has advanced, but we're still groping for definitive answers to why some people can't lose weight."*

Our response as physicians is too often inadequate. We may suggest yet another program. We may prescribe one of the medications currently available or our preferred weight-loss diet, tell them to get more exercise, wish them well as we send them on their way, and expect to see them five pounds heavier in a month. Guilt and hopelessness are also the prevailing emotions for physicians.

As director of the Minnesota Obesity Center, Charles Billington, M.D. (profiled on page 6), is working to change that by giving physicians information about treatment options—ranging from compassion to surgical intervention—that will help their patients lose weight.

Physicians want to help their patients lose weight. Certainly, patients want to lose weight. So why is treating obesity so frustrating and unsuccessful? I think it's because this disease is a puzzle whose solution hinges on biochemical and behavioral revelations, as highlighted in our Cover Stories (starting on page 14).

This month's *Minnesota Medicine*, while not quite an answer book, is a guide for practicing physicians attempting to understand the secrets of obesity. Our clinical articles, solicited and edited with the help of Harold C. Seim, M.D., describe diets that work, pharmocological solutions to weight loss, and successful approaches to keeping the weight off. Our Perspectives piece offers a first-person account of one woman's desperate attempts to lose weight—and her sense of triumph 15 months after undergoing gastric-bypass surgery.

Weight gain and obesity, as noted in these articles, are more complicated than the arithmetic of calories-in minus calories-out. New genetic and biochemical discoveries have yielded a complex, yet-incomplete picture of leptins, receptors, and the hypothalamus. The science of obesity has advanced, but we're still groping for definitive answers to why some people can't lose weight.

Behavioral modification may be medicine's biggest black box. And currently, successful treatment of obese patients depends on changing behavior. There is no perfect pill. There are no safe crash diets. Maintaining weight loss requires changing behavior. Whichever of the many weight-loss methods detailed in our issue patients choose, they have to modify their habits. Since future treatments likely will also depend upon altered diet and exercise, the battle of the brain will have to be won before the battle of the bulge.

At the end of a one-summer foray into the mysteries of golf at age 16, I found the sport as cryptic as when the summer started. I doubt whether such scientifically driven improvements as titanium "woods," graphite shafts, or even hypnotism would have helped my game. The treatment of obesity has a more promising future. While altering behavior will always be challenging, new understanding of the biochemistry and physiology of obesity is bound to make its treatment less frustrating and more successful.

*–Charles R. Meyer, M.D., Editor-in-Chief*




CYCLE OF HOPE

877-717-HOPE
www.cycleofhope.org

**I may be a Tour de France Champion, but what's most important is that I am a Cancer Champion. I fought a tough battle and won—you can too.**

**The *Cycle of Hope* can help you break through the cycle of fear. Request a free kit today with information about your risks and the symptoms of cancer and tips for fighting the disease.**

Lance Armstrong

LANCE ARMSTRONG FOUNDATION

# Make a mental image with 2 new imaging centers.








**Suburban Imaging - Maple Grove**

Arbor Lakes Medical, Suite 310
12000 Elm Creek Boulevard
Maple Grove, Minnesota 55369
763 416-7888

**Suburban Imaging - Edina Consulting Center**

5203 Vernon Avenue
Edina, Minnesota 55436
952 848-0104

**MRI • CT • Ultrasound**

Suburban imaging
A service of Suburban Radiologic Consultants, Ltd.

**Coon Rapids • Maple Grove • Edina Consulting Center**
**Southdale • Centennial Lakes • Burnsville**

Suburban Imaging is a service of Suburban Radiologic Consultants, Ltd. © 2000

# *Minnesota Medicine*

Published monthly by the Minnesota Medical Association

*Owner and Publisher*
Minnesota Medical Association

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Managing Editor*
Meredith McNab

*Associate Editors*
Lisa Moshfeghi
Carmen Peota

*Publications Assistant*
Katie Ocel

*MMA News & Views Editor*
Lorrie Holmgren

*MMA News & Views Writer*
Cynthia Lehman

*Graphic Designers*
Barbara Gerbig
Katie Ocel

Send manuscripts, subscriptions, and other material for consideration to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/378-1875. E-mail: mm@mnmed.org
The editors reserve the right to reject editorial, scientific, or advertising material submitted for publication in *Minnesota Medicine.* The views expressed in this journal do not necessarily represent those of the Minnesota Medical Association, its editors, or any of its constituents. Annual subscription–$40. Single copies–$3.50. Canadian–$70. Foreign–$70.

***To Advertise:*** Contact Michele Holzwarth, *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/623-2880 or 800/DIAL MMA (342-5662).



**Advisory Committee**

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Advisory Committee*
Charles R. Meyer, M.D.
Edmund C. Burke, M.D.
Richard C. Lussky, M.D.
Lynne Ogawa, M.D.
Paul S. Sanders, M.D.
Leif I. Solberg, M.D.
Barbara P. Yawn, M.D.
Meredith McNab, staff

*Editors Emeritus*
Edmund C. Burke, M.D.
1991-1993

Richard L. Reece, M.D.
1975-1990

Reuben Berman, M.D.
1971-1974

Carl O. Rice, M.D.
1961-1970



**Copyright & Post Office Entry**

*Minnesota Medicine* (ISSN 0026-556X) is published on the fifth of each month by the Minnesota Medical Association, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761, copyright 2000. Permission to reproduce editorial material in this magazine must be obtained from *Minnesota Medicine.* Periodicals postage paid at Minneapolis, Minnesota, and at additional mailing offices. POSTMASTER, send address changes to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761. (USPS 3519000.)



MINNESOTA MEDICAL ASSOCIATION

**2000–2001 Officers**

*President*
Blanton Bessinger, M.D.

*President-Elect*
Peter C. Amadio, M.D.

*Chair, Board of Trustees*
Robert K. Meiches, M.D.

*Vice President*
David D. Luehr, M.D.

*Secretary*
David L. Estrin, M.D.

*Treasurer*
Michael B. Ainslie, M.D.

*Speaker of the House*
Gary D. Hanovich, M.D.

*Vice Speaker of the House*
Rebecca Jean Hafner, M.D.

*Past President*
John M. Van Etta, M.D.

*Chief Executive Officer*
Paul S. Sanders, M.D.

**MMA Senior Staff**

*Director of Communications*
Lorrie Holmgren

*Chief Financial Officer*
George C. Lohmer Jr.

*Director of State and Federal Legislation*
David Renner

*Director of Health Law*
Christina F. Rich, J.D.

*Director of Health Economics and Policy Analysis*
Janet Silversmith

*Director of Executive Office*
Karen A. Tourdot

**Alliance**

*President*
Diane Gayes

*President-Elect*
Pam Schmidt

**Board of Trustees**

*N.W. District*
Jerry P. Rogers, M.D.

*N.E. District*
Stephen L. Hadley, M.D.
Charles R. Helleloid, M.D.

*N. Central District*
James J. Dehen Jr., M.D.
George Schoephoerster, M.D.

*West Metro*
Lee Beecher, M.D.
Karen K. Dickson, M.D.
John W. Larsen, M.D.
Robert K. Meiches, M.D.
Henry T. Smith, M.D.

*East Metro*
Thomas Dunkel, M.D.
Lyle Swenson, M.D.

*S.W. District*
Terence P. Cahill, M.D.
Elton G. Wing, M.D.

*S.E. District*
G. Richard Geier Jr., M.D.
Daniel E. Maddox, M.D.
Kimberly McKeon, M.D.

*Resident Member*
Melissa Merideth, M.D.

*Medical Student*
Sam Reck

**AMA**

*AMA Delegates*
Robert D. Christensen, M.D.
Frank J. Indihar, M.D.
Carolyn J. McKay, M.D.
Lyle Munneke, M.D.
Audrey M. Nelson, M.D., *Chair*
Thomas L. Peyla, M.D.
Andrew J.K. Smith, M.D.

*AMA Alternates*
Raymond G. Christensen, M.D.
Kenneth W. Crabb, M.D.
Anthony C. Jaspers, M.D.
Paul C. Matson, M.D.
Sally Trippel, M.D.
John M. Van Etta, M.D.
Benjamin H. Whitten, M.D.


**MMA Address**

Minnesota Medical Association
3433 Broadway Street NE, Suite 300
Minneapolis, MN 55413-1761
Phone: 612/378-1875 or 800 DIAL MMA (342-5662)
Fax: 612/378-3875
E-mail: mma@mnmed.org
Web site: www.mnmed.org




We said it was simple. We didn't say it was a lot of fun. But you get what you pay for. And with Medical Protective you're paying for a company that wins 90% of its cases that go to trial with a vast majority closing with no payment. You're paying for coverage that fits your needs and a policy that leaves the final decision to settle in your hands.*

You're also paying for something else – peace of mind. A peace of mind that was recently strengthened when The Medical Protective Company became a part of Employers Reinsurance Corporation, a GE Capital Services company. This union solidifies our absolute commitment to the protection of doctors like you. If your most valuable asset, your reputation, is on the line, protect yourself with our unparalleled defense strategy. Nearly 60,000 of your colleagues do. For the Medical Protective representative in your area, call (800) 344-1899.

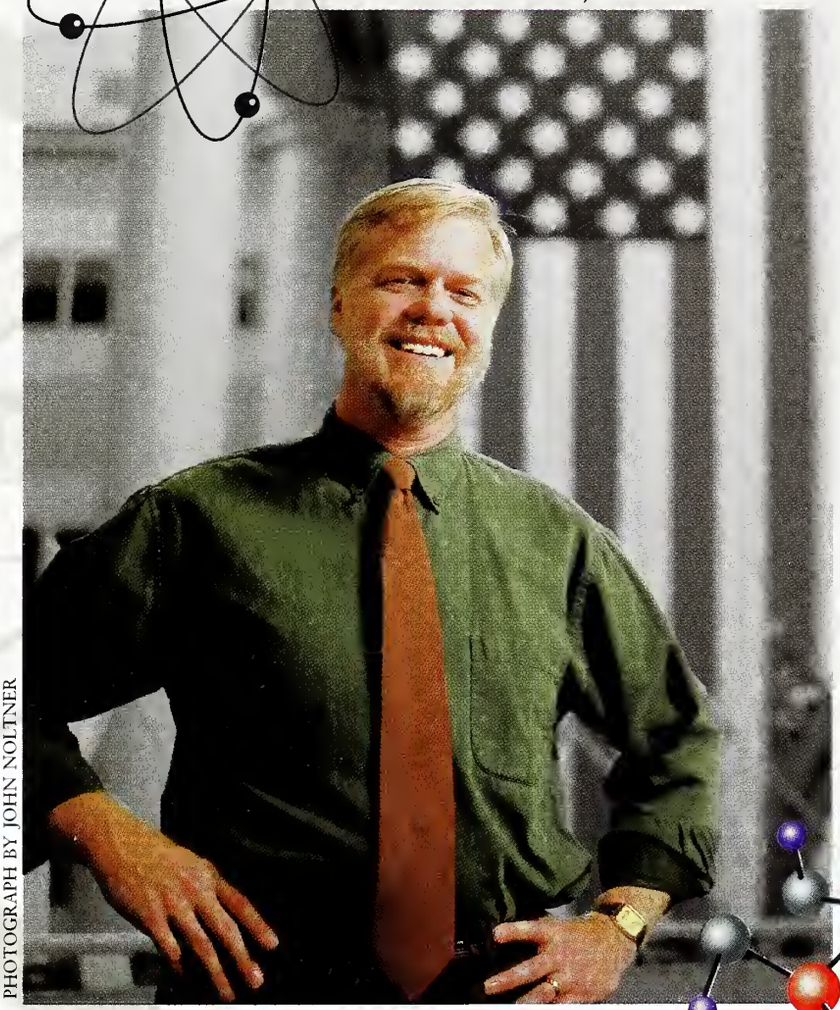
www.medicalprotective.com

**The Medical Protective Company®**

**Unless prohibited by law.*

# A Quiet Crusader Puts Faith In Science

By Susan Gaines



PHOTOGRAPH BY JOHN NOLTNER

Obesity researcher Charles Billington's passion for science breeds compassion for patients.

Charles Billington, M.D., is not easily riled. Soft-spoken, he carefully chooses his words to describe his life's work in obesity research and treatment. But his mild manner belies a deeper intensity and compassion, according to his long-time friend and colleague John Rotilie, M.D., a St. Paul internist. "He has a deep belief in rational scientific approach," says Rotilie. "In the obesity world [this belief] enables him to move into a moral-ethical realm."

Indeed, Billington, director of the obesity treatment program at the Minneapolis VA Medical Center, demonstrates an optimism and empathy rare in a field that often leaves clinicians frustrated, unable to help their patients effect the lifelong changes necessary for better health. But Billington would be the first to point out that his positive approach to obesity treatment is not simply a symptom of his good character. He believes little in the power of character. In fact, if you want to see Billington get a little heated, tell him obesity is the symptom of weak will or a character flaw. "This idea that people are obese because they're lazy and can't control themselves, that their strong will is fighting with their weak will, or some goofy formulation," says Billington, "is not only inaccurate, it's counterproductive."

It's far more useful, he says, to treat obesity as a chronic disease analogous to chemical dependency or depression. "We would not go to a depressed person and slap them around and yell at them to stop being depressed. We'd say, 'OK, there's something wrong with your chemistry and we're going to try to fix it.' "

Billington, an endocrinologist, believes we can fix obesity, too. "We have to," he says. Each year some 300,000 deaths are attributed to obesity in American adults. The disease is reaching epidemic proportions, posing a major health risk for high blood pressure, heart disease, some types of cancers, degenerative joint disease, and type 2 diabetes.

Billington is working on the problem by providing medical training on obesity through the Centers for Obesity Research and Education (C.O.R.E.) at the VA Medical Center in Minneapolis, one of eight sites nationwide. He spearheads the C.O.R.E. workshops, which provide physicians and other health care professionals with information and clinical tools to help patients lose weight.

Using a range of techniques borrowed from the fields of psychology and chemical dependency, C.O.R.E. first brings the latest information to practitioners and then helps them learn to empower their patients. "We try to offer them a different perspective that says the patient has the knowledge and the power to adopt their own changes," says Billington.

"This idea that people are obese because they're lazy and can't control themselves ... is not only inaccurate, it's counterproductive."

Supported by Slim•Fast Foods Company, Knoll Pharmaceutical Company, and Glaxo-Wellcome Pharmaceuticals, C.O.R.E. helps bridge a well-recognized gap between obesity research and treatment. Using case studies, C.O.R.E. offers health care professionals several approaches to help patients make changes that lead to weight loss and control. "We're completely uninterested in fad diets," says Billington of C.O.R.E. "This is a chronic disease, and we're trying to fix it forever."

At the C.O.R.E. workshops, physicians learn to accurately assess the level of obesity and apply an appropriate treatment plan that can be fine-tuned to the particular patient. The program also emphasizes the importance of empathy in healing. C.O.R.E. participants go beyond putting themselves in someone else's shoes; they put themselves in someone else's body by wearing an "empathy suit" that adds an extra 40 pounds to a person's normal weight.

Treating obesity may lead to feelings of frustration, not necessarily empathy, Billington says from experience. He knew from his medicine residency and endocrinology practice at the VA Medical Center that obesity and type 2 diabetes were closely related, and that weight loss could be an effective treatment. But he felt unable to help his patients. His frustration sent him back to the laboratory to research brain networks regulating appetite and body weight—work that has earned him a respected place in the field of obesity science.

Currently, as associate director of the VA Medical Center's Minnesota Obesity Center, sponsored by the National Institutes of Health and the University of Minnesota, Billington researches the mechanisms that regulate metabolism and appetite.

Most recently, his research has focused on how two neurotransmitter systems—neuropeptide Y and opiods—interact in a network originally thought to be located in the hypothalamus. "Now, we believe this network involves many other parts of the brain,"

### *Dr. Charles J. Billington At a Glance*

*AGE: 57*

*TITLES: associate director, Minnesota Obesity Center; director, Special Diagnostic and Treatment Unit, Minneapolis VA Medical Center; director of the VAMC obesity treatment program; president, North American Association for the Study of Obesity.*

*EDUCATION: B.A. Rice University, 1975; M.D., University of Kansas, 1983*

*FAMILY: wife, Susan Berry, M.D., professor of pediatrics at the University of Minnesota; son, Charles Billington Jr., 19, freshman at Yale University; daughter,Beth Billington, 13, student at St. Paul Academy.*

Billington says, "particularly the parts of the brain that are involved in reflexes and sensing the status of the body at any particular moment; and the parts of the brain that are involved in pleasure, reward, and memory. Even things like pleasure and desire we reinterpret as a biological process."

About five years ago, researchers discovered leptin, a hormone made in fat cells and secreted into the blood. Its most important receptors are believed to be in the hypothalamus. Further research showed that mice become obese when a genetic mutation prevents them from producing leptin. Not surprisingly, the human body reacts the same way. While only a small percentage of humans lack leptin, says Billington, the discovery of the hormone and its role in controlling appetite and weight made believers out of many who did not yet fully accept obesity as a disease with biologic underpinnings. "The leptin story tells us that if the brain isn't set up right, then people are going to eat a lot and become obese."

While biology is the foundation of obesity, environment plays a significant role as well. Billington blames modern American society's "ability to provide interesting, desirable foods in unlimited quantities" for tempting us to eat too much. "The problem is, [obese people] are fighting against a combination of biology and culture that is very hard to deal with," he says.

Understanding the biological and environmental basis of obesity is one thing. Applying that knowledge is another. Billington is confident that C.O.R.E. can help professionals use the research to help patients. And he hopes that effective pharmacological treatments will follow close behind the mounting scientific data. For now, however, practitioners are in the somewhat paradoxical position of using behavior modification to treat obesity. "At this point, we aren't blaming you," Billington says he must tell patients, "but we don't have much else to offer you except to get you to change your behavior."

When he's not fighting obesity on the professional front, Billington is doing his part to model the sort of behavior that continues to be an effective treatment for obesity: daily exercise. He never misses his exercise hour, according to his assistant, Brenda Tisdale. As long as the weather holds out, he plays volleyball every day at lunchtime, and when the weather turns cold he heads into the gym.

Equally important to Billington is the life of the mind. "He has a deep belief in going forward with ideas," says Rotilie. "He believes in finding the truth through dialogue." With as much commitment as he has for volleyball, Billington attends a breakfast club every Friday morning, where he, Rotilie, and other friends indulge their love of the history of ideas. "We're junkies for that," Rotilie says.

The subject of obesity has not escaped these weekly sessions, where Billington continually asserts obesity is about biology, not character. Science gives him great hope and even faith, though he is hesitant to use the word. Rotilie, however, takes it a step further. "Charlie is a cleric in the religion of science." Ironically, it is in science that Billington has found genuine compassion. MM

*Susan Gaines is a freelance writer who lives in Minneapolis.*

## At the C.O.R.E.

Centers for Obesity Research and Education (C.O.R.E.) is a research, education, and training program designed to help health care professionals integrate into their daily practice available tools for treating overweight and obese patients. The program is housed at eight nationally recognized treatment centers, including the Minneapolis VA Medical Center's Minnesota Obesity Center.

Health care practitioners have not necessarily been trained to help their patients lose weight, even though nearly one in four American adults suffers from obesity. C.O.R.E. helps professionals understand the seriousness of this disease and the challenges of weight management.

The half-day training sessions include information about treatment options, including

- compassion as a resource in obesity treatment,
- techniques of motivational interviewing,
- techniques for changing behavior,
- assessment guidelines and risk populations,
- pharmaceutical and surgical options.

For information about upcoming C.O.R.E. workshops, contact Heidi Hoover, M.S., R.D., at 612/725-2004.

5 hours of sleep

18 hour shift

20 minutes to eat

Plenty of time to get a liability insurance quote.

## www.micoadirect.com

Now you can find a professional liability quote when you can find the time. With MICOA Direct, you can get a quote online quickly, easily and most importantly, when it's convenient for you. And it's a quote backed by a company that's been in the business for 25 years, has an A- (Excellent) rating from A.M. Best, and was actually founded by physicians for physicians. Simply log on to MICOA Direct or call 1-888-738-0504. All inquiries are protected and quotes are available within 24 hours of request Monday through Friday. Finally, professional liability quotes are available when you are.

**1-888-738-0504**

MICOA
Mutual Insurance Corporation Of America
»Direct«

**The Customer Solutions People**



SMITH/THE IMAGE BANK © 2000

# Measure for Measure

By Kathleen Bradley

## Gastric-bypass surgery puts an end to yo-yo dieting and severe pain.

At first, half my hair fell out and I vomited every day. Even now I can't eat or even drink water with the reckless abandon I used to. The skin on my upper arms, abdomen, and legs flaps in the breeze when I walk. But, thanks to gastric-bypass surgery, I've never been happier.

Since I first began battling my weight in adolescence, I've tried virtually every new diet that came into vogue. But though I'd lose as much as 75 pounds at a throw, I regained it in a matter of weeks. This yo-yo dieting not only left me discouraged, but fixed my body's set point so determinedly that I'd plateau after losing only a few pounds on any new diet.

As my weight reached a level it never had before, I began to experience severe lower-back pain. That, together with debilitating osteoarthritis in my neck, back, and knees, made it difficult to get to my desk from the front door of my workplace and from my desk to the restroom. I was obliged to ride a motorized cart to do my shopping or push a walker equipped with a seat whenever I had to walk more than a few steps at a time.

I was taking so much morphine for pain control that I struggled to remain awake. The quality of my work degraded to the extent that I nearly lost my means of support, and even my own opinion of my abilities gravely deteriorated. Life became a blur of pain, depression, and shame.

But that was then. Now, post-gastric bypass, you'd hardly recognize me. The changes in my body and outlook seem miraculous. I can scarcely contain the sheer joy welling up inside me most of the time. Coworkers and friends hug me and tell me that I look great and that they can hardly believe the change in me. I race along as fast as my legs will carry me. I am swimming laps three times a week, doing range-of-motion exercises, and considering adding a weight-training regimen to my workouts. I still have arthritis and disk disease, but aside from flare-ups in my knees when I tramp around on uneven ground, I do not have debilitating pain.

This is the first time in 40 years that I've felt hopeful about the future, relatively free of lower-back pain, and excited about life in general.

Don't get me wrong: I was terrified at the prospect of major, risky surgery. That's why, with so much at stake, I struggled so long to lose the weight through dieting and exercise. But the day came when I had to admit I was powerless over food and needed outside intervention to save me from myself. I reasoned that I'd either die of obesity, suicide, or the surgery—not much of a decision, after all.

The first step was getting my HMO to OK the surgery. Because I had severe health problems associated with and exacerbated by my obesity, it would be to their financial benefit to consent to the procedure. The long-term outcome probably would be a reduction in several of my medications and an overall improvement in my health. They saw the advantage to this strategy and approved the surgery.

Next, I began a campaign for an early surgical date. This was difficult, because the doctor was scheduled about two months in advance. I was so despondent that the delay seemed insurmountable. At least once a week, I called the nurse who managed the surgical calendar. Finally, I struck pay dirt: Someone had canceled her surgery, and I would be able to go in for mine in just 12 days. I was elated. I had my pre-op physical and did my night-before prep. The day of my surgery, I awoke at 4:30 a.m. to get ready for the 6 a.m. hospital check-in. My surgery was delayed once I was in the pre-op cubicle, and I had quite a wait before the doctor got to me. But I didn't care; I was there, and this would be *the* day.

When I awoke in the recovery room, I was surprised that there was a not-intolerable level of pain. (Of course, as I found out soon enough, that was because of the medication my care team was administering.) The gash from sternum to navel was ugly. A tube inserted in the incision drained fluids to a collection bag. My urethra was catheterized, with yet another collection bag attached. My abdomen was wrapped in a huge, stretchy, belt-like contraption with a Velcro closure. I was receiving narcotics at four-hour intervals. My blood pressure for the first few post-op days was something like 60/40. I was on IVs, both for hydration and for administering pain relievers.

I was on a liquid diet while in the hospital. My IV came out accidentally on the third or fourth day. The catheter, thank goodness, was removed the day after surgery. The incision drain was removed the morning of the day I left. I was in the hospital for five days; surgery was on Monday, and I left at noon Saturday. I had no idea what I'd be able to eat at home. I was still having trouble using the restroom, walking, and bathing. Getting out of a chair was torture. The friend who drove me home stopped at the grocery store, where I rode around on a cart and bought strained baby food—though not for a baby.

Progress occurred in tiny increments. I was cautioned to walk as much as possible to lessen the

likelihood of blood clots. I took this advice very seriously, and began using my walker to cruise the neighborhood. The walker has a seat, so I'd walk for a while and sit for a while. The more weight I lost, the longer I could walk without resting. The more I walked, the better I felt.

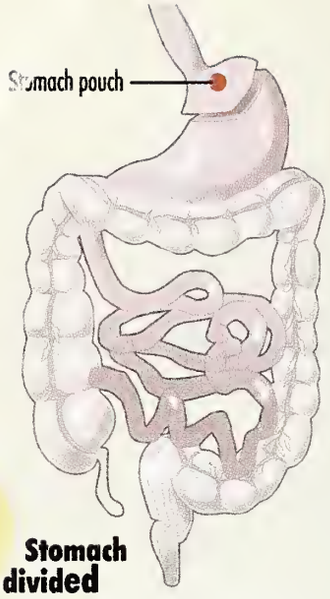
The eating part was much slower to show improvement, though. I ate the minutest amount of food, yet felt nauseated all day. This made me hesitant to eat anything at all. I knew I wasn't getting enough nourishment—especially protein. I experimented with seemingly digestible foods such as yogurt, tuna, hot cereals, and pudding cups. I'd eat two ounces of food every four hours or so. Sometimes there would be a larger gap, when the mere thought of food started my stomach churning. Now I eat anything that suits me—just not much of it.

I went back to work at my full-time position nine weeks to the day from the surgery.

After fighting a losing—no pun intended—battle with obesity since adolescence, I've lost 75 pounds since May 15. I truly feel like a new woman. I continue to improve and am still losing weight.

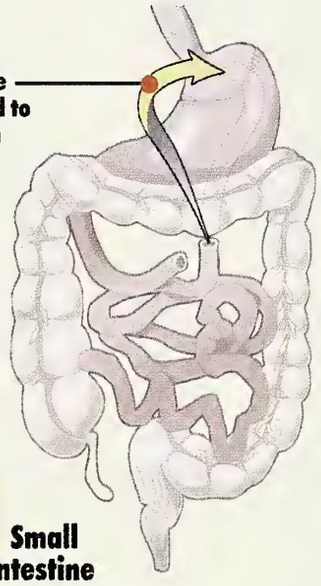
Would I do it again? In a heartbeat. There's hope out there for others in similar situations. It's never too late to find one's way out of the morass of despair. MM

*Kathy Bradley is on staff at the* Star Tribune, *Minneapolis-St. Paul.* Star Tribune *medical graphics by Ray Grumney. Story and graphics reprinted with permission of the* Star Tribune.



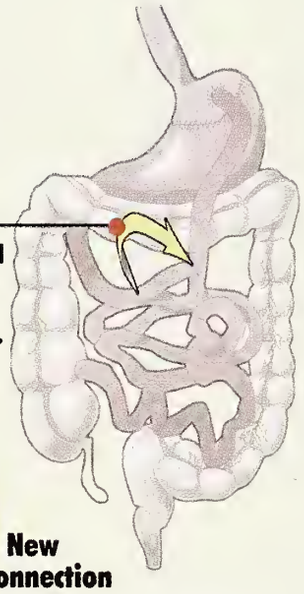

**1 Stomach divided**

After making an incision that runs from the bottom of the sternum to the top of the belly button, surgeons use a variety of approaches to create a small pouch in the stomach. The pouch only holds a few bites of food, which leads to the patient feeling full after eating little.




**2 Small intestine**

Next, surgeons attach a section of the small intestine to the end of the pouch.




**3 New connection**

This new connection allows food to bypass the remainder of the stomach and the duodenum (the first part of the small intestine) as well as the first portion of the jejunum (the second segment of the small intestine). This reduces the amount of nutrients and calories absorbed into the body, which further aids

**DRASTIC MEASURE PROVES EFFECTIVE**

Between 4 million and 10 million Americans are considered morbidly obese — generally defined as being about 100 pounds or more overweight or having a body mass index (BMI) over 40. Excess body weight can lead to a variety of health problems, including diabetes, heart disease, low back pain, and sleep apnea. Surgery that reduces the size of the stomach, which is referred to as bariatric surgery, is one of the few treatment options proven effective at helping morbidly obese people lose weight and minimize the associated health risks. There are two main types of bariatric surgery: gastric bypass and an approach that uses a band made out of special material to make the stomach smaller. Shown at left is the gastric-bypass technique.

**FOR MORE INFORMATION:**

◆ American Society for Bariatric Surgery
140 N.W. 75th Drive, Suite C
Gainesville, FL 32607
phone 352/331-4900
fax 352/331-4975
http://www.asbs.org

◆ Dr. Henry Buchwald
University of Minnesota
Box 290 Mayo Building
420 Delaware St. SE
Minneapolis, MN 55455
612/625-8446
http://www.surg.umn.edu/gensurg/obes/default.htm


**Emergency Medicine Opportunities**

**Emergency Practice Associates** provides quality emergency physician services. Our physicians work as independent contractors in a growth-oriented, physician-supported environment.

***full time opportunities***

| | |
|---|---|
| *GRAND RAPIDS, MN* | **Itasca Medical Center**<br>Medical Director<br>and Staff Physician |
| *HIBBING, MN* | **University Medical Center–Mesabi**<br>Staff Physician |
| *LITTLE FALLS, MN* | **St. Gabriel's Hospital**<br>Medical Director<br>and Staff Physician |

***part time opportunities***

| | |
|---|---|
| *NEW ULM, MN* | **New Ulm Medical Center**<br>Medical Director and Staff Physician |
| *CROSBY, MN* | **Cuyuna Regional Medical Center** |
| *ST. PETER, MN* | **Community Hospital & Health Center** |

EMERGENCY PRACTICE ASSOCIATES
BOX 1260
WATERLOO, IA 50704
FAX: 319-236-3644

**Call Patty Berning, Physician Recruiter at 1-800-458-5003**
www.epamidwest.com

# HealthPartners®
*Institute for Medical Education*

CONTINUING PROFESSIONAL DEVELOPMENT OFFERINGS

Cardiology Today ..... Every Third Tuesday
Women's Health: New Information for a New Century ..... November 3, 2000
Pulmonary and Critical Care Medicine ..... November 9 – 10, 2000
Orthopedic Practicum for Primary Care ..... November 17 – 18, 2000
22nd Annual Cardiovascular Conference ..... December 7 – 8, 2000
13th Annual Wound/Burn Care Today ..... February 8 – 9, 2001
The Blues & Beyond:
Practical tools for dealing with depression and low mood ..... February 23, 2001
15th Annual Family Medicine Today ..... March 8 – 9, 2001
OB/Gyn Update ..... April 5 – 6, 2001

FOR FURTHER INFORMATION CONTACT:
*Health Partners Institute for Medical Education*
*Continuing Professional Development*
*8100 34th Ave. S., P.O. Box 1309 • Minneapolis, MN 55440-1309*
*Phone 952-883-6225 • Fax 952-883-7272*
*Web site: IME.HealthPartners.com*

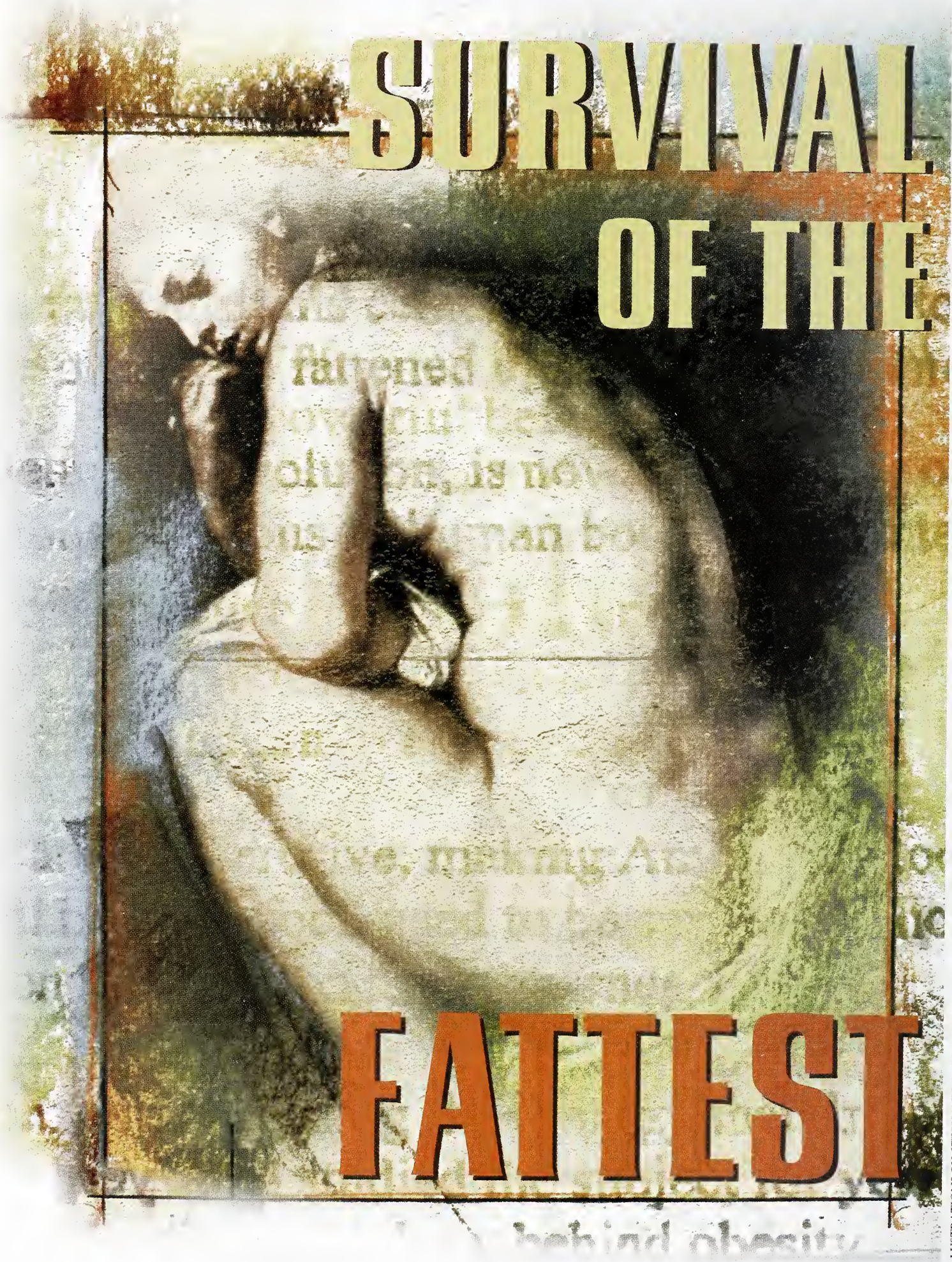
Assessment/Evaluation • Residential, Day & Outpatient Recovery Services • Continuing Care • Parenting Programs • Intermediate/Extended Care • Community Education • Bibliotherapy • Family Programs • Special Programs Designed For Seniors & Adolescents • Nicotine Addiction • Expertise In Treating Impaired Professionals

# WE'LL DO ANYTHING TO HELP.

*Hazelden offers services for every aspect of addictions recovery.*
*With centers in Minnesota, Chicago, New York, and West Palm Beach. Call us at 800-257-7800 or visit us at www.hazelden.org. We can help. It's what we do.* HAZELDEN®

©2000 Hazelden Foundation

# SURVIVAL OF THE FATTEST



ILLUSTRATIONS BY STEPHANIE DALTON COWAN

The fattening of America is not a plot, but it is a conspiracy—between a culture of convenience and a fat-favoring physiology.

The human body is programmed to store fat. Until this century, food was hard to come by. The people who survived lean times were the ones who fattened up during good times.

But that strategy for survival, reinforced by millennia of evolution, is now a recipe for obesity. In the United States and many other developed nations, millions of human bodies encounter more food and fewer physical demands than ever before.

It shows.

Biochemical circuits that help the body store fat are in overdrive, making Americans too big to be healthy. The biological impulse to eat—powerful because food used to be scarce—is now triggered in nearly every supermarket aisle and on nearly every street corner.

Since the environment isn't likely to change soon, understanding the biology that drives weight gain has taken on new urgency. While a few specialists had studied the subject for years, only recently have researchers as a whole begun to appreciate the biology behind obesity.

Now, scientists realize that when it comes to gaining weight, both free will and physiology play a role. Using lab animals and sophisticated brain-imaging techniques, biologists are scrutinizing a curious area in the brain called the hypothalamus, a peanut-size cluster of cells that monitors the body's calories.

Hundreds of scientists are studying a long-sought, yet only recently discovered, hormone called leptin, which tells the hypothalamus how much fat is stored on the body. Other researchers are trying to figure out to what extent genetic differences increase the risk of gaining weight.

Articles on appetite control appear every week in scientific journals, and almost every article ends with a hopeful phrase that the new research will lead to antiobesity medications.

By understanding the built-in systems for consuming, storing, and burning calories, scientists and drug companies hope to find ways to short-circuit people's propensity to put on pounds.

Scientists have found at least 60 brain chemicals that influence food intake.

Not surprisingly, scientists say, the body has many built-in biochemical systems to ward off a fatal situation: too few calories taken in for too long.

"This is a complex and very, very redundant system," said Eric Ravussin, a physiologist with the drug maker Eli Lilly and Co. in Indianapolis. "This is survival of a species."

Still, body weight itself boils down to a simple equation: Energy, measured in calories, comes in as food. And that energy goes out when it is used to build muscles, run or walk, lift a finger, or simply to stay alive. When "energy in" exceeds "energy out," the body stores that energy as fat.

"People think of fat as the enemy," says Bruce Spiegelman, a cell biologist at Dana-Farber Cancer Institute in Boston. "Fat per se is not the enemy," he says. "Energy balance is the enemy."

Using research into the role of biology in obesity, scientists and drug companies hope to find ways to short-circuit our propensity to put on pounds.

The control center for energy balance, scientists believe, is the hypothalamus, buried deep within the brain. Scientists first realized how important the hypothalamus was by studying the brains of laboratory animals. Disrupting one region of the hypothalamus caused animals to gorge and gain weight. Disrupting another caused animals to eat less and lose weight.

If the hypothalamus is the control center for energy balance, one of the biggest mysteries has been how the control center received dispatches from the body's fat stores.

"It had been hypothesized for years that there had to be a feedback system arising from body fat stores," says Timothy Moran, a neuroscientist at Johns Hopkins University School of Medicine in Baltimore. Since fat cells are where excess energy is stored, they were the ideal tissue to tell the brain how much more energy was needed.

At first, some scientists proposed that leptin's job was to protect against both obesity and starvation. While some fat storage is beneficial as a safeguard against lean times, too much fat causes health problems, such as diabetes and infertility. High leptin levels could serve as a signal of too much fat, providing natural protection against such diseases.

The opposite would occur if fat stores dropped—leptin levels would fall, too, telling the body it needed to take in more energy than it was using. Scientists believe this mechanism is an important safeguard against starvation.

These ideas fit with what happened when scientists

By Sue Goetinck

studied a strain of genetically obese mice whose protection against obesity had disappeared: Their leptin had been taken away, so they got fat.

But then scientists realized that many other fat animals, and fat people—who obviously were not resisting obesity—had lots of leptin in their bloodstream.

"The real question," York says, "is why this system isn't working in people who get fat and animals who get fat."

As scientists sort out leptin's exact purpose, they are also studying other molecules deep inside the hypothalamus, some of which work in conjunction with leptin to affect body weight.

When energy balance is stable, people eat according to social and work schedules; what looks, smells, and tastes good; or to satisfy a grumbling stomach. These impulses are governed mainly by areas outside the hypothalamus—in the stem of the brain or regions in the front of the brain.

But when body fat shoots up or down, Schwartz says, those short-term signals play second fiddle to the stronger effects from the hypothalamus.

"When hypothalamic systems are activated, everything else becomes secondary," Schwartz says. "Those (short-term) systems will become basically enslaved by the input from the hypothalamus."

But if the brain has systems designed to keep body fat constant, why do some people gain weight? The answer, scientists say, goes back to the challenges people faced during evolution. A rigidly controlled system that didn't allow people to gain or lose an ounce wouldn't help human ancestors survive hard times. So there is slack in the system, and it's slanted to let people gain weight when food is plentiful.

By some estimates, 40 to 70 percent of the variation in body weight across the population is due to genetics.

Previous studies have shown that the brains of hungry people have different activity patterns than the brains of people who feel full.

Two new reports provide the first comparisons of the brains of obese and lean people.

Their brains, it turns out, are different.

In [the May 2000] issue of the journal *Diabetes,* scientists from the University of Texas at San Antonio Health Science Center report a brain-imaging study of 10 obese and 10 lean people.

The scientists gave both groups a sugar drink and then watched the activity in the hypothalamus. The hypothalamus responded in both sets of subjects, but in the obese people, it took longer to respond, and the response was weaker. It's as if the obese people's

## Getting a grip on obesity

Experts say the federal government needs to address the increase in overweight and obese adults and children in the United States.

**How many?**

Overweight U.S. adults, in millions:
- 1976–80: 46
- 1998: 55

Obese U.S. adults, in millions:
- 1976–80: 14
- 1998: 39

**Defining terms**

Overweight: Body mass index (BMI) of 25 or over

Obese: BMI of 30 or over

20% of U.S. children are overweight

Overweight, obesity are more common among blacks, Hispanics, women, and the poor

**Why you should care**

Obesity:
- Increases risks of dangerous diseases such as type 2 diabetes, high blood pressure, stroke, heart disease
- Is linked to increases in deaths from most diseases

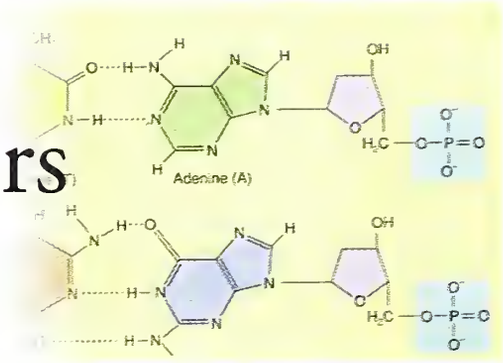
**Compute your body mass index**

(Weight in pounds) divided by (height in inches squared) times 704.5 = BMI



Source: American Obesity Association

# In Battle Against Obesity Biochemists Are Warriors




## America is addicted—to food.

As with other addictions, will power alone is seldom a sufficient treatment. Sure, it works for some people, but in most people, the motivation to eat overwhelms concerns for health and image.

Gimmicks work little better. There are more diet plans available in America today than calories in a Krispy Kreme doughnut, but the plumpness in the population continues to proliferate. Experts estimate that more Americans are overweight than not, and 22 percent of the population qualifies as obese. And the more people get fat, the more other people fatten their wallets with offers of miracle cures.

But just as there are no easy cures for drug addiction, there is no simple solution to obesity. The brain biology behind overeating is no less complicated than the chemistry of cocaine. In fact, addiction to drugs and addiction to food may be parts of the same biochemical puzzle.

Dozens of brain chemicals play a part in appetite and eating; few are well-enough studied for science to say exactly what they do. Only in the 1990s have scientists begun to appreciate just how many molecular suspects lurk in the parts of the brain that control feeding behavior.

Among the most curious of recently discovered chemicals in this category is a small protein known as CART, found broken into fragments (called peptides) in various parts of the brain.

Clues to the existence of CART peptides first showed up in the brains of rats given cocaine and amphetamine (hence the C and A in CART). Scientists soon found signs of CART peptides in other brain regions, including the hypothalamus, the control center for appetite. At least six different CART fragments have been identified in the gut, the adrenal glands, and different parts of the brain, write neurobiologists Michael Kuhar and Stephanie Dall Vechia of Emory University's Yerkes Regional Primate Research Center in Atlanta.

"These results ... suggest that CART peptides are not insignificant in the brain, and that they could represent very important peptide products with widespread, influential roles," the biologists wrote in the [July 1999] *Trends in Neurosciences*.

Scientists have found evidence, for example, that CART peptides play a role not only in addiction and eating, but also in sensory processes (such as sight and hearing), the response to stress, sexual function, and the workings of the body's immune system.

Most of the information about CART peptides comes from studies in rats (the human peptides are more than 90 percent similar to the rat versions). Very little about CART peptides has been definitely established. But the picture emerging from a lot of preliminary research suggests that CART could provide a path to dealing effectively with obesity.

For example, injecting certain CART peptides into rats suppresses feeding behavior. CART peptides also can neutralize the effects of another chemical, neuropeptide Y, that enhances appetite.

CART's part in eating is also connected to the hormone leptin, which apparently plays a role in how much CART the brain produces. Mice deficient in leptin seem to make less CART; leptin injections can boost CART production.

When normal rats go without eating for a day or two, CART levels seem to go down in a part of the brain related to feeding.

While research so far has identified a lot of what CART peptides do, there is less evidence about how they work. The best guess is that CART peptides are neurotransmitters, "messenger molecules" that shuttle information between cells of the nervous system. If so, certain cells must contain specific "receptor" molecules tuned to each CART peptide's message. Once those receptor molecules are identified and studied, researchers could design substitute molecules to either mimic or block CART peptides' effects.

Whether strategies based on CART peptides can help society cope with obesity depends on how fully scientists can unravel the brain's complexities. And there's no guarantee that CART will turn out to be the best vehicle for influencing eating behavior. Because CART's effects on eating are linked to many other chemicals and many other aspects of the brain's biology, using CART-related approaches to weight loss might be sabotaged by side effects.

In any event, CART's arrival on the obesity scene sends a warning to anyone who thinks preventing obesity should be easy. Weight-control programs in the past have all been battling molecules that nobody even knew existed before 1995. It's no wonder that obesity medicine to date has been dominated by popular books rather than professional publications.

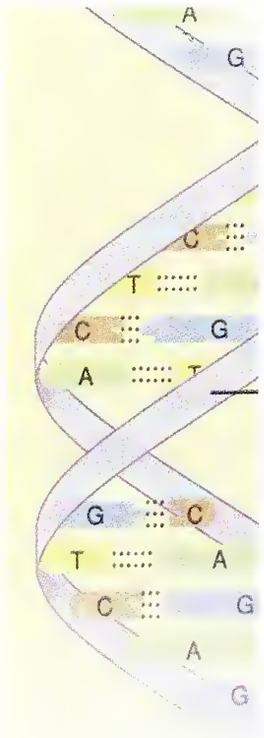
The point is that surefire success will come only with sound science. Why people eat the food they do, and what happens after they eat it, are biological processes. Curing obesity in America will require advances in understanding that biology.

*By Tom Siegfried, a staff writer at* The Dallas Morning News.

*Reprinted with permission of* The Dallas Morning News.

hypothalamus didn't pay as much attention to the sugar drink.

The researchers still haven't figured out whether the difference in brain activity is why the obese people gained weight in the first place. It may be that their obesity came first, and that the way their brains respond to food is simply a side effect. But if the brains of obese people are simply different to begin with—and actually contribute to the obesity—drugs that alter brain activity could help people control their weight.



A man of normal weight can gain almost 10 pounds in one year by burning 3 percent fewer calories.

Individual differences in "energy in" are better understood than "energy out." But a new development in the "energy out" side of the equation came [in February 2000]. In the journal *Neuron,* scientists reported that a gene known as Vgf may help control how energy is used.

Mice altered to lack that gene, it seems, burn more calories than normal mice. And they weigh only half as much. Scientists still don't know how the mice are burning more calories. It may be through a special type of fat called brown fat. It may be through increased activity—the mice move around a lot, covering 10 times the distance as normal mice.

Energy expenditure also may be affected by leptin. Scientists know that when leptin levels are low, food intake increases and energy expenditure decreases. That makes sense, Ravussin says, because both changes help stockpile energy when lean times require it.

If scientists could understand more about how people burn energy, they might be able to trick the body into burning calories for free. Brown fat, present mostly in newborns, is being intensely studied for that reason.

This brown adipose tissue (the technical name for brown fat) converts fat directly into heat. On the other hand, white adipose tissue—such as the kind that accumulates on the hips and abdomen—simply stores fat. Scientists are hoping to find drugs that would trick white fat cells into becoming brown fat cells.

One study showed this conversion is possible. Researchers treated rats so their livers would produce large quantities of leptin. With the liver instead of the fat cells taking the primary responsibility for producing leptin, the white fat cells seemed to regress, and they began acting like brown fat cells. All the fat disappeared from the rats' bodies.

The complexity of energy balance is both good and bad for scientists searching for drugs that could reverse or prevent weight gain. The many body chemicals involved in the control of energy balance make for lots of targets for drugs. But the high number of body chemicals also means the body has a stiff defense against any attempt to alter how much energy is stored.

What's more, when food intake drops, the body's metabolic rate drops, too—in part to conserve energy. So a drug that blocks food intake might not have as big an effect on weight loss as anticipated because fewer calories would be burned.

Pennington's York says he thinks the real advance in appetite-suppressing drugs might come from those that interfere with a set of brain chemicals called opioids. These chemicals give the pleasurable sensation that comes from eating.

"The problem is, humans don't eat when they're hungry," York says. Many people take in extra calories for comfort or to be sociable—say, at a party.

In any case, preventing or treating weight gain will be difficult, given today's environment and people's biological makeup, Ravussin says. Most people have little protection against putting on pounds.

"Those that are protected are the oddballs. They are the nonsurvivors," he says. "They would have disappeared 1,000 years ago." MM

*Sue Goetinck is a staff writer at* The Dallas Morning News.

*Reprinted with permission of* The Dallas Morning News.

## Resources: National Obesity Groups

American Obesity Association
800/98-OBESE
www.obesity.org

North American Association for the Study of Obesity (publishers of Obesity Research)
301/563-6526
www.naaso.org

National Association to Advance Fat Acceptance
916/558-6880 or 800/442-1214
www.naafa.org

Overeaters Anonymous
505/891-2664
www.overeatersanonymous.org

ASPEN
Medical Group

Aspen Medical Group is a 160+ provider multi-specialty group with 9 clinics located throughout the Minneapolis / St. Paul metro area. We are currently seeking BE/BC physicians for the following specialties:

***Dermatology***
***Internal Medicine***
***Urgent Care***

Aspen Medical Group is governed by its own physicians and health care providers. Guaranteed base salary available for the first two years. Competitive benefits package.

For further information, please contact:

Nancy Borgstrom, Provider Services Coordinator
1020 Bandana Boulevard West
Saint Paul, MN 55108
phone 651-641-7081 • fax 651-641-7151
e-mail nborgstr@aspenmed.org
EOE. No J-1 opportunities available.

The best of both — A place to practice. A place to live.

Owatonna Clinic offers physicians local practice autonomy and access to Mayo Clinic's expertise in clinical medicine, education and research.

Opportunities to join our team are available in:

- Dermatology
- Family Medicine
- Internal Medicine
- Obstetrics and Gynecology
- Orthopedic Surgery

To learn more about our wonderful city and clinic, visit us at owtclinic.org

**Contact David Berg at 507-455-4441 or berg.david2@mayo.edu**

Owatonna Clinic
*Mayo Health System*

**Whitefish 2001**

*A Primary Care Odyssey*

**February 20 – 23, 2001**
**Grouse Mountain Lodge–Whitefish, Mont.**

***A Primary Care Odyssey*** **will give you practical tools for your clinical practice and develop a better understanding of medical issues facing both patients and medical practitioners.**

## Whitefish 2001 Topics

Update on Ischemic Stroke • Current Diagnosis and Treatment of Dementia • Multiple Sclerosis Basics: The Need for Early Diagnosis & Treatment • The New Insulins & Approaches to the Use of Oral Agents in Diabetes • Improving Asthma & COPD Outcomes: New Agents & Types of Delivery • Points on Joints: Diagnosis • Points on Joints: Treatment • Chemical Dependency, The Medical Model: An Update • The Impaired Health Care Professional • ADHD: Who is Attending to the Inattentive? • Another Shot! Are We Overimmunizing Our Children? • Preventive Medicine for Adults: Rationale and Strategies • The Concise Pre-Anesthesia/Pre-Operative Evaluation • Spirituality and Health Care: An Update • Common Surgical Diagnoses in Pediatric Patients • A Systematic Workup of Surgical Abdominal Pain • Managing Cognitive Decline in the Elderly • Optimizing Management of the Diabetic Foot • Estate Planning for Health Care Providers: Beyond the Basics • Estate Planning for Health Care Providers: Retirement Plans & Other Special Situations

**Topics are subject to change.*

## Registration Information

**Conference Fee** All Days - $300 Per Day - $100

## Conference Rail Package:

Includes round-trip rail transportation, six nights lodging at the Grouse Mountain Lodge, four continental breakfasts during the conference, baggage handling and transfers. The train leaves Fargo, N.D. on February 18th and returns on February 25th. Amtrak departure cities in Minn., N.D., & Mont. are also available.

1st Adult $775 Add'l Adults (13+) $425 Under 13 $250
Add'l charge for Family Loft (Sleeps 6-8) $400

Sleeper Cars (Round trip - availability limited)
*Sleeper Cars include meal vouchers for breakfast, lunch and dinner round trip.*

| | | | |
|---|---|---|---|
| Standard (Mpls) | $260 | Standard (Fargo) | $220 |
| Deluxe (Mpls) | $552 | Deluxe (Fargo) | $466 |

**For hotel reservations or more information call our Whitefish Conference Hotline at (701) 234-6913 or (800) 437-4010 ext. 6913 or email: whitefishconference@meritcare.com**

MeritCare Health System
School of Medicine & Health Sciences

# Weighing In

Harold C. Seim, M.D., M.P.H.

The chronic disease of obesity continues to elude successful treatment. In fact, the more image-conscious, low-fat diet era of the 1980s, when 25% of Americans were considered obese, has given way to an increasingly sedentary age. Today's poor dietary habits contribute to U.S.-obesity figures that now approach 40% to 50%. And we now know that a low-fat, high-carbohydrate diet doesn't lead to weight loss for certain portions of the population.

The reason for this phenomenon is hyperinsulinemia secondary to insulin resistance, a condition well-researched and popularized by Gerald Reaven, M.D., at Stanford University. Studies indicate that the ultimate result is Syndrome X (also known as the metabolic syndrome or the deadly quartet)—obesity, elevated lipids, hypertension, and type 2 diabetes. The good news is that once the obesity is treated, the comorbidities improve.

On the following pages, three issues concerning weight loss and weight maintenance are explored. Mary Wangsness, M.D., a board-certified bariatrician, provides an overview of antiobesity drugs. Most of these drugs are anorectic agents that may aid people with both weight loss and weight-loss maintenance. Karen Holtmeier, M.P.H., R.D., L.N., and I outline how dietary manipulation using fewer carbohydrates and adequate protein facilitates weight reduction, an approach that is based on treating persons who are insulin resistant. Finally, Mary Lou Klem, Ph.D., of the University of Pittsburgh, details strategies used by about 3,000 people who have successfully maintained weight loss, the most difficult aspect of obesity treatment.

The basic science of obesity must go further, but the future is favorable. Several drugs are under investigation; neurotransmitters, gut hormones, and leptin manipulations appear most promising. For now, we continue with diet manipulation, exercise, behavior change, nutrition education, and a maintenance program as the accepted method of reducing weight and keeping it off.

Practitioners interested in learning more about treating obese patients should contact the American Society of Bariatric Physicians at 303/770-2526 or visit society's Web site at www.asbp.org.

*Harold Seim is board certified in family practice and bariatrics. He has had a special interest in treating obese persons for 25 years—the last 18 while on the faculty of the University of Minnesota Medical School. He is now an owner and medical director of the Medical Weight Management Center in St. Paul, Minnesota.*

# Pharmacological Treatment of Obesity

## *Past, Present, and Future*

By Mary Wangsness, M.D.

ABSTRACT

Physicians have struggled with the pharmacological treatment of obesity. In the past, thyroid hormone was often used inappropriately. Dangerous drugs such as dinitrophenol and amphetamines were prescribed, with serious side effects.

In the 1980s, a 3½-year study using antiobesity medications with different mechanisms of action supported the theary that patients treated with combination therapy experienced greater weight loss than the placebo-treated patients and that those who remained on therapy were more likely to keep the weight off. Thus, physicians began prescribing "fen-phen" to their patients in the mid-1990s. In 1997, manufacturers voluntarily withdrew the fenfluramines from the market after study results linked their use with valvular heart disease.

Since then, two new drugs with different mechanisms of action have been approved for use by the FDA. Sibutramine (Meridia) is a serotonin-norepinephrine reuptake inhibitor acting on the appetite center in the hypothalamus, and orlistat (Xenical) is a pancreatic lipase inhibitor. Research on antiobesity drugs continues. More than 30 potentially new drugs are in various stages of research. It could be years, however, before any of them are proven useful and safe. Antiobesity pharmacology is meant to be used as a tool to treat the disease. Lifestyle changes in the form of diet and exercise patterns are still the crux of therapy.

"Doctor, I lost 42 pounds in five months on fen-phen. It was so easy—I just wasn't hungry. And the weight just 'fell off.' Then fen-phen was taken off the market and I put all that weight back on, plus 10 pounds!"

We have all heard that story from our patients. Overweight patients are still desperately seeking help. Obviously, the importance of fewer calories, less fat and sugar, and regular exercise cannot be stressed enough. But obesity is a disease of energy imbalance, the causes of which are multifaceted, and the treatment must be multifaceted as well.

Many studies have shown that weight-related comorbidities, such as hypertension, hypercholesteremia, and type 2 diabetes mellitus, can be greatly improved with a 5% to 10% loss of initial body weight that is sustained over time.[1,2] We must emphasize to our patients that a 10% weight loss is medically successful and encourage them to start a weight-loss program that has realistic and achievable goals.

Pharmacological treatment of obesity can be tremendously beneficial to patients when it is used in conjunction with lifestyle changes, including behavior modification and regular physical activity. Physicians should consider pharmacotherapy for patients with obesity-related comorbidities who have had no success with dietary and physical activity therapy.[3]

### *Historical Use of Drugs to Treat Obesity*

Historically, the management of overweight patients has been difficult. Thyroid extract was the first drug used for the treatment of obesity, and its use has continued for 75 years. Currently, thyroid hormones are not indicated for the treatment of obesity unless the patient is hypothyroid. In the early 1900s, it was noted that textile workers lost weight after exposure to the drug dinitrophenol, which was inhaled during textile processing. Prescribed in oral form, the drug, which uncouples oxidative phosphorylation, then became the second drug introduced for the treatment of obesity. Its use was discontinued a few years later because of serious side effects, including neuropathies and cataracts.

In 1937, dextroamphetamine was introduced for the treatment of obesity. Over the next several decades, "rainbow pills" came into vogue, including thyroid, digitalis, and amphetamines, alone and in combination. Their use led to many deaths. Amphetamine abuse was considerable at that time, and by association, a negative image tainted all obesity drugs.[4]

The most recent and well-publicized problem for drug therapy for the treatment of obesity was the 1997 report of valvular heart disease associated with the use of fenfluramine (pondomin), dexfenfluramine (Redux), and phentermine.

Weintraub et al. studied the use of antiobesity medications in the 1980s. The premise that obesity is a chronic disease, like diabetes or hypertension, led this particular group to examine the use of long-term medications for the sustained control of body weight. Weintraub also applied combination drug therapy. To improve the efficacy that could be achieved with higher doses of a single agent and with fewer adverse effects, he prescribed the use of reduced amounts of 2 medications with different mechanisms of action. Weintraub performed a long-term prospective randomized double-blind trial designed

to compare a placebo with the combined use of an adrenergic agent (phentermine) and a selective serotonergic agent (fenfluramine) in 121 obese patients. He also instituted dietary counseling and behavior modification. During the first 6 months of the trial, those who were on the combination therapy lost significantly more weight than those who were on the placebo (15.9% vs. 4.9% of initial weight). Among those subjects who completed the study, weight tended to remain stable or increase only slightly for the duration of the 3½ years of the study.[5,6]

As a consequence of this study, the off-label use of phentermine with fenfluramine (popularly known as fen-phen) became the diet craze of the 1990s. Between 1994 and 1997, millions of prescriptions for this combination were written for and used by people who were overweight and obese. The average weight loss in one year was between 10% and 17% of initial body weight. However, the two serotonergic agents, fenfluramine and dexfenfluramine, were known to be associated with the rare primary pulmonary hypertension. The risk was 123-fold with the use of these medications if exposure was greater than 3 months,[7] making it as likely as the anaphylactic reaction to penicillin.

The voluntary withdrawal of fenfluramine and dexfenfluramine from the market in September 1997 was the result of an unexpected report by the Mayo Clinic that linked valvular heart disease with the use of these medications.[8] Abnormal echocardiograms were discovered in 30% to 38% of individuals exposed to the medications. Although the cause of the increased incidence of aortic regurgitation and mitral insufficiency remains unknown, at least 3 case-controlled studies and 1 prospective study suggest that the incidence is lower than previously thought (16%–23%) and is related to the duration of the exposure; those who took the drugs for longer than 3 to 4 months were more likely to experience adverse effects.[9,10]

September 15, 1997, became a black day for millions of overweight Americans who may have felt hopeful that they would lose weight and maintain the weight loss. Patients and physicians alike became considerably disillusioned with diet pills.

## *The Current Treatment Model*

Obesity expert George Bray, M.D., uses a feedback model for understanding obesity and its treatment.[4] The model consists of a controlled system (the body), which includes digestion, absorption, storage, and metabolism of carbohydrates, fat, and protein; a central control system in the brain; the afferent neural hormonal and nutrient signals that tell the brain about the state of the body; and finally, the efferent controls, including the motor nervous system, the autonomic nervous system, and the hormonal controls that regulate food intake and the metabolic state of the body. Based on this type of model, 3 different mechanisms can be used to classify drug treatment for obesity: drugs that reduce food intake; drugs that affect metabolism; and drugs that increase energy expenditure.

## *Drugs that Reduce Food Intake*

### Noradrenergic drugs

The noradrenergic drugs, which release norepinephrine or block its reuptake into neurons, make up one major group affecting food intake (see the table). The norepinephrine is released from stores in the presynaptic vesicles, and, in turn, reduces food intake by acting on B-adrenergic receptors in the perifornical hypothalamus. These drugs are chemically similar to norepinephrine and epinephrine.

All of the available drugs are derivatives of B-phenethylamine. Chemical modifications have been made to reduce their abuse potential, yet retain their appetite-suppressing effect. Amphetamine, or alpha-methyl B-phenethylamine, is an addictive B-phenethylamine. The addictive potential of amphetamine is probably related to its effect on dopaminergic neurotransmission. Its anorectic effects are likely due to its modulation of noradrenergic neurotransmission. Phentermine and diethylpropion are sympathomimetic amines like amphetamine but differ from amphetamine in that they have little or no effect on dopamine release at the synapse.

Phenylpropanolamine (Acutrim, Dexatrim, Prolamine) is the only approved noradrenergic drug that acts as an $a_1$–adrenergic agonist. It acts on the $a_1$-adrenergic receptors located in the paraventricular nucleus.[11] The drug is also a vasoconstrictor and is present in many decongestants. Results from a few short-term studies with phenylpropanolamine as a weight-loss medication[12] showed that patients experienced significantly more weight loss with this drug than with a placebo, but less weight loss than with other noradrenergic drugs. The literature suggests that high doses of the drug (above 75 mg) may increase blood pressure, but if used as prescribed, this is rarely seen.[13]

### Serotonergic drugs

Fenfluramine and dexfenfluramine are also B-phenethylamines. Pharmacologically, however, the substitution of a trifluoromethane group in the meta position on the phenyl ring completely alters the function of the drug. The drug is metabolized in the liver into norfenfluramine and d-fenfluramine. D-norfenfluramine, the active metabolite of dexfenfluramine, enhances serotonin release from the neuron and acts as an agonist for 5-hydroxytryphtophan receptors, which reduce food intake.[9] D-fenfluramine acts to block reuptake of serotonin into the neuron. Serotonin in the neural cleft is believed to reduce food intake.[4]

There are data from a number of trials using fluoxetine (Prozac), a drug approved for use in the treatment of depression. Fluoxetine reduces food intake in animals, and in short-term clinical trials, fluoxetine produced a dose-related decrease in body weight. In longer trials, the maximum weight loss occurred at 20 to 30 weeks of treatment. Return to baseline body weight typically occurred by year 1.[14,15] Fluoxetine has not been approved for use in the treatment of obesity.

### Serotonergic and adrenergic drugs

Sibutramine (Meridia), the newest sympathomimetic drug approved for

Table

*Comparison of antiobesity agents.*

| System | Generic name | Brand name | Mechanism | Dosage regimen | DEA schedule |
|---|---|---|---|---|---|
| Centrally acting adrenergic | Benzphetamine | Didrex* | Stimulates NE release | 25m to 50 mg q d-TID | III |
| | Phendimetrazine | Prelu-2α<br>Bontril**<br>Plegine*** | Stimulates NE release | 105 mg SR q d | III |
| | Diethylproprion | Tenuate‡ | Stimulates NE release | 25 mg tid or 75 mg SR q d | IV |
| | Mazindol | Mazanor†<br>Sanorex*‡ | Blocks NE reuptake | 1 mg TID<br>1 mg q d | IV |
| | Phentermine | Adipex-P*†<br>Fastin**‡<br>Ionamin**† | Stimulates NE release | 37.5 mg qd<br>30 mg q d<br>15 mg or 30 mg q d | IV |
| | Phenylpropanolamine | Acutrim‡‡<br>Dexatrim‡‡‡<br>Prolamine†*** | Alpha-1 agonist | 75 mg SR q d<br>25 mg TID or 75 mg SR<br>37.5 mg q d | OTC |
| Centrally acting serotonergic | Fenfluramine | Pondimin†† | Stimulates 5-HT release | 20 mg TID | Removed from the market Sept, 1997 |
| | Dexfenfluramine | Redux††† | Stimulates 5-HT release | 15 mg BID | Removed from the market Sept, 1997 |
| Centrally acting adrenergic and serotonergic | Sibutramine | Meridia†††† | Serotonin and norepinephrine reuptake inhibitor (SNRI) | 5, 10, 15 mg q d | IV |
| Lipase inhibitor | Orlistat | Xenical‡† | Gastric and pancreatic lipase inhibitor | 120 mg TID | Not scheduled |

*Didrex is a registered trademark of Pharmacia & Upjahn
αPrelu-2 is a registered trademark of Raxane Laboratories Inc.
**Bantril is a registered trademark of Carnrick Laboratories
***Plegine is a registered trademark of Wyeth-Ayerst Laboratories
‡Tenuate is a registered trademark of Hoechst-Marian Raussel
†Mazanar is a registered trademark of Wyeth-Ayerst Labroataries
*‡Sanarex is a registered trademark of Sandaz Pharmaceuticals
*†Adipex-P is a registered trademark of Teva Pharmaceuticals USA
**‡Fastin is a registered trademark of SmithKline Beecham
**†Ianamin is a registered trademark of Fisans Investments Inc.
‡‡Acutrim is a registered trademark of Heritage Cansumer Praducts LLC
‡‡‡Dexatrim is a registered trademark of Thamspsan Medical Ca. Inc.
†***Pralamine is a registered trademark of Thamspsan Medical Ca. Inc.
††Pandimin is a registered trademark of A.H. Rabins
†††Redux is a registered trademark of Wyeth-Ayerst Labroataries
††††Meridia is a registered trademark of Knall Pharmaceutical Campany
‡†Xenical is a registered trademark of Rache Labaratories Inc.

*Table reprinted with permission from* Obesity: Disease Management Guide, *by Robert Kushner. (Montvale: Medical Economics Company, 2000).*

the treatment of obesity, was studied extensively in several multicenter trials lasting 6 to 12 months. Sibutramine inhibits the reuptake of serotonin and norepinephrine. The data from 1,000 patients showed a clear-cut, dose-related response for the first 24 weeks of the study, with doses ranging from 5 mg to 30 mg.[3,16,17] Weight was regained when the drug was stopped. Two thirds of those treated with sibutramine lost 5% of their initial body weight, and one third lost more than 10%. Lipids and uric acid were reduced across all trials as measured by weight loss. (Weight loss of approximately 1 lb per week is considered a good response.) The recommended initial study dose is 10 mg and is titrated up or down from the baseline depending

on the patient's response.[16,17]

Doses above 20 mg are not recommended, and side effects include headache, insomnia, elevated blood pressure and pulse, dry mouth, and constipation. Sibutramine should not be used in patients with a history of coronary artery disease, coronary heart failure, cardiac arrhythmias, stroke, or uncontrolled hypertension. Two weeks should pass between termination of monamine oxidase inhibitors (MAOIs) and beginning sibutramine. The drug should not be used with MAOIs or selective serotonin reuptake inhibitors. Because sibutramine is metabolized by the cytochrome P-450 enzyme system, it may interfere with the metabolism of erythromycin and ketoconozole.

#### Nutrient partitioning

Orlistat (Xenical) is a gastrointestinal lipase inhibitor that reduces dietary fat absorption by about 30%. The drug was studied extensively in 7 clinical trials throughout the United States and Europe that included 4,173 patients. Four 2-year studies looked at weight loss and weight-loss maintenance, and a 1-year study focused on type 2 diabetes.

Data were pooled from the numerous research centers to determine if the administration of orlistat combined with dietary intervention improves glucose tolerance and prevents worsening of diabetes more effectively than a placebo. The study concluded that the addition of orlistat to a conventional weight-loss regimen significantly improved oral glucose tolerance and slowed the progression to impaired glucose tolerance and improved control in type 2 diabetes.[18]

Orlistat is not significantly absorbed and its side effects are related to the blockage of triglyceride digestion in the intestine. Fecal fat loss and related gastrointestinal symptoms may occur initially, but generally subside as the patient learns how to take the drug. Preliminary data indicate that an increase in fiber in the diet or the use of psyllium products may abate or prevent some of the gastrointestinal side effects. Orlistat is also meant to give patients a "feedback message" to help them alter their dietary composition and increase awareness of dietary intake. The drug is best used with a 1,200–1,400 cal per day diet with 40–50 g per day of fat, consumed in the course of 3 meals and 2 low-fat snacks. Because fat-soluble vitamins may be lost in the stool, some patients will need vitamin supplementation.

## *Drugs that Increase Energy Expenditure*

#### Ephedrine/Caffeine

Ephedrine is a sympathomimetic amine used to relax bronchial smooth muscle in patients with asthma. It also stimulates thermogenesis in humans. Caffeine is a xanthine that inhibits adrenaline receptors and phosphodiesterase. One long-term placebo-controlled clinical trial with ephedrine, caffeine, or their combination showed greater weight loss for the combination of ephedrine and caffeine than for either drug alone. Neither ephedrine nor caffeine alone or in combination is approved for the treatment of obesity.[9,19,20]

The most popular of the "herbal fen-phen" products are sold under the brand names, Metabolife 356, Metabolift, Diet-Phen, and Xenadrine. They may also contain St. John's wort, guarana (caffeine), garcinia cambogla (hydrocytric acid), and chromium picolinate. Since 1994, the Food and Drug Administration (FDA) has received and investigated 800 reports of adverse effects associated with these products. Reactions to these supplements have included insomnia, nervousness, tremors, headaches, hypertension, arrhythmias, seizures, myocardial infarctions, strokes, and deaths. The FDA issued a warning against the use of these drugs in 1997: "These unapproved drugs have not been shown to be safe or effective and may contain ingredients that have been associated with injuries." The FDA recommends that consumers take the supplements for no more than 7 days, and that they avoid doses of 8 mg or more of ephedrine within a 6-hour period or 24 mg or more within 24 hours. Metabolife 356 has 12 mg of ephedrine and Metabolift contains 20 mg of ephedrine per dose.[9]

## *The Future of Antiobesity Medications*

Currently, there are at least 30 drugs in various stages of research and development. New strategies for identifying obesity genes, like mouse genomics, positional cloning, and other molecular biology–based approaches, have led to faster and more prolific identification of potential candidates; a cottage industry of drug development out-sourcing organizations has sprung up to help pharmaceutical companies develop products faster. Some of the drugs already in human trials could be seen on the market in as little as 5 years, whereas products in the preclinical stages are 10 years or more away from availability or use.

Some potentially new drugs are in various stages of clinical trials. P57, a botanical drug in phase 2 clinical trials, is derived from extracts of a plant native to South Africa that has produced appetite suppression in animals but whose mechanism is not yet known.

Ciliary neurotropic factor (CNTF) stimulates receptors in the leptin pathway that suppress food intake and lower body weight. In studies focusing on CNTF for amyotrophic lateral sclerosis (Lou Gehrig's disease) and Huntington's disease, researchers found that weight loss was a side effect, possibly mediated by a cross-reactivity between CNTF and other cytokine receptors like leptin. Most people who are obese have high leptin levels and possibly leptin resistance. An alternative to treating patients who have high leptin levels may be to use a different molecule, such as CNTF, to activate the same signaling pathways but circumvent leptin resistance.[21]

Another drug in phase 2 clinical trials, glucagon-like peptide-1 (GLP-1), delays gastric emptying, which in turn limits food intake, stimulates insulin, and inhibits glucagon secretion after a meal. In diabetics, this action reduces postprandial hypoglycemia and may result in weight loss. GLP-1 may affect the ideal brake mechanism, an important regulator of gastrointestinal function.[21]

Exendin-4 is similar to GLP-1,

but is pharmaceutically more attractive because of its longer duration of action. In clinical trials, Exendin stimulated insulin secretion during periods of hyperglycemia and also slowed gastric emptying. Chronic administration decreased food consumption in obese animals and restored near normal glucose control in animal models with type 2 diabetes. Gastric emptying is useful in treating diabetics, but researchers are uncertain whether it will produce weight loss.[22]

Human steroidal hormone (RF1051), which causes the body to store less fat or produce more energy, is in phase 2 clinical trials. RF1051 is a human hormonal analog belonging to a class of steroids called etiocholanolones. Preclinical studies suggest that RF1051 is involved in energy and glucose metabolism. Unlike thiazolidinediones, which increase insulin sensitivity but result in weight gain, RF1051 was found to be effective in promoting weight loss and increasing insulin sensitivity in obese animal models. Plasma levels of RF1051 are significantly reduced in obesity and are even lower in patients with Prader-Willi syndrome. In phase 1 human trials, patients lost significantly more weight on RH1051 than on a placebo. Further, the weight loss was maintained for a period of 10 weeks post-medication. These results suggest that RF1051 has a long half-life and may not need to be administered daily. No side effects were reported during phase 1 trials.[22]

R-fluoxetine is the right-hand isomer of fluoxetine, which is marketed by Eli Lilly under the brand name Prozac. R-fluoxetine is in phase 1 clinical trials and reduces appetite by inhibiting the reuptake of serotonin. The isomer has a shorter half-life than Prozac and has the potential for improved efficacy as well as new indications for depression, obsessive-compulsive disorder, anxiety spectrum disorders, eating disorders, and premenstrual syndrome.[22]

The fat cell hormone leptin has antiobesity properties in rodents. It was noted that subanorexogenic doses of leptin, without an effect on body weight, improved insulin sensitivity in *ob/ob* mice and may also stimulate glucose metabolism in normal mice. These reports imply that a defect in leptin secretion could exacerbate obesity and insulin resistance, two prevalent conditions in people with type 2 diabetes. Peak-stimulated leptin levels were lower in diabetic patients compared with those of controls.[23] Studies have shown a strong positive correlation between serum leptin concentrations and the percentage of body fat in humans. It has been postulated that obese persons are insensitive to endogenous leptin production.[20] Two phase 2 trials on leptin are under way, one on obesity, the other on type 2 diabetes. Amgen, the developer of the drug, has also started a phase 1 pharmacokinetic trial with a second-generation leptin molecule, which, it is hoped, will facilitate delivery of larger doses of the protein. Phase 1 clinical trials showed a moderate weight loss in some people, but it is unknown why leptin works in some individuals and not others. Leptin is currently available by injection only, although an oral form is being developed.

Serum leptin levels are correlated with the percentage of body fat, which suggests that most obese persons are insensitive to the impact of endogenous leptin production. Preadipocytes (fat cell precursors) of weight-reduced individuals are more likely to develop into fat cells and are more resistant to cell death, which makes weight maintenance difficult.[19,23] "Leptin promoter" drugs would increase leptin levels through control of gene expression of the *ob* gene. The switch or "promoter" region of the gene regulates the production of leptin, and mutations in the region of the leptin and promoter decrease the expression of leptin.

Most obese people have high levels of leptin in the blood but not in the cerebral spinal fluid, prompting scientists to speculate that a cause of leptin resistance may be inefficient transport across the blood-brain barrier. The manufacture of a small-molecule drug is pending that would allow leptin to cross the blood-brain barrier.[22]

The research on leptin has been expanded to include the types of obesity that are most likely to respond to exogenous leptin, as well as the relationship between leptin secretion and lipolysis. More research needs to be done to understand the role of leptin with regard to endocrine function and the part it plays in resting energy expenditure and body composition.

Investigators are also working with drugs that would regulate peptides. Cholecystokinin, bombesin, glucagon, insulin, enterostatin, cyclohistidyl-proline, somatomedin, amylin, leptid, and apoprotein IV all reduce food intake. Information about the role of peptides may be the basis of therapy aimed at strengthening the peripheral satiety messages.[19]

Neuropeptide Y is a 36-amino acid peptide that is one of the most well-known, potent stimulators of food intake. It also produces a dose-dependent decrease in sympathetic activity to brown adipose tissue. Neuropeptide Y primarily stimulates the intake of carbohydrates through the receptors in the paraventricular nucleus. Opioids, galanin, GH-releasing hormone, melanin-concentrating hormone, and orexin also stimulate food intake in various ways. Research is being done to produce agonists for these peptides.[20]

There have been numerous other advances in obesity research and treatment. For example, investigators have observed the role of the gastrointestinal tract and the vagus nerve in afferent signals. They have also become interested in the role of peptides in modulating central control of feeding and the way in which the efferent controls in the sympathetic and parasympathetic nervous system work. They are also pursuing the permissive role of adrenal glucocorticoids. Finally, investigators are studying the central role of the fat cell in providing the leptin signal for long-term regulation of body fat stores. Against this rapidly expanding knowledge base, new strategies for the treatment of obesity may be imminent.[23]

## *Summary*

In the last decade, the treatment of obesity has come a long way. We now have greater awareness; better, safer drugs; more research concerning causation treatment; and dietary guidelines regarding carbohydrates, protein, and fat. ⇨

Antiobesity drugs are tools in the treatment of excessive weight. They cannot be used effectively without patient counseling concerning lifestyle alterations, which must include a healthy diet and exercise. Our American culture has prompted some tremendously bad habits. In our nation, food is cheap and plentiful. We always seem too busy to consider the necessity of healthy, well-balanced meals that include adequate amounts of fruits, vegetables, fiber, and protein. In our culture, we are surrounded by energy-saving devices and are more prone to sedentary activities such as watching television than we are to hiking around our neighborhoods or our lakes and forests. As a result, we are becoming more overweight with each decade. New drugs for the treatment of obesity will undoubtedly find a home in our marketplace, but such medications should not be used as a substitute for the development of healthier habits. MM

*Mary Wangsness is a graduate of the University of Minnesota Medical School and did her postgraduate training at United-Children's Hospital in St. Paul, Minnesota. She is board certified in bariatric medicine and practices in Woodbury and Plymouth.*

REFERENCES

1. Goldstein DJ. Beneficial health effects of modest weight loss. Int J Obes 1992;16: 397-415.
2. Wing RR, Koeske R, Epstein LH, Nowalk MP, Gooding W, Becker D. Long-term effects of modest weight loss in type 2 diabetic patients. Arch Intern Med 1987;147: 1749-53.
3. Bray GA. Contemporary diagnosis and management of obesity. Newtown, PA: Handbooks in Health Care, 1998:246-73.
4. Bray GA. Handbook of obesity. New York: Marcel Dekker, 1998:953-75.
5. Weintraub M. Long-term weight control (parts 1–7)—the National Heart Lung and Blood Institute-funded multimodal intervention study. Clin Pharm 1992;51(5):581-641.
6. Weintraub M, Hasday JD, Mushlin AI, Lockwood DH. A double-blind clinical trial in weight control. Use of fenfluramine and phentermine alone and in combination. Arch Intern Med 1984;144(6):1143-8.
7. Abenhaim L, Moride Y, Brenot F, et al. For the International Primary Pulmonary Hypertension Study Group. N Engl J Med 1996;335:609-16.
8. Connolly HM, Crary JL, McGoon MD, et al: Valvular heart disease associated with fenfluramine-phentermine. N Engl J Med 1997;337:581-8.
9. Kushner RF. Managing obesity: the current clinical strategies. In: Kushner RF. Obesity: disease management guide. Montvale, N.J.: Medical Economics Company, 2000: 101-23.
10. Bray GA, Greenway FL. Current and potential drugs for treatment of obesity. Endocr Rev 1999;20(6):805-75.
11. Wellman PJ, Davies BT. Reversal of cirazoline-induced and phenylpro-panolamine-induced anorexia by the alpha-1-receptor antagonist prazosin. Pharm Bio B 1992;42(1):97-100.
12. Weintraub M. Phenylpropanolamine as an anorexiant agent in weight control: a review of published and unpublished studies. In: Morgan JP, Kagan DV, Brody JS, eds. Phenylprepanolamine: risks, benefits and controversies. New York: Praeger, 1985: 53-79.
13. Morgan JP, Funderburk FR. Phenylpropanolamine and blood pressure: a review a prospective studies. Am J Clin Nutr 1992;55:206S-10S.
14. Levine LR, Enas GG, Thompson WL, et al. Use of fluoxetine, a selective serotonin-uptake inhibitor, in the treatment of obesity—a dose response study. Int J Obes 1989; 13(5):635-45.
15. Darga LL, Carroll-Michals L, Botsford SJ, Lucas CJ. Fluoxetine's effect on weight loss in obese subjects 1–3. Am J Clin Nutr 1991;54(2):321-5.
16. Weintraub M, Rubio A, Golik A, Byrne L. Sibutramine dose-ranging efficacy study. Clin Pharm 1991;50(3):330-7.
17. Zhi J, Melia AT, Guerciolini R, et al. Retrospective population-based analysis of the dose-response (fecal fat excretion) relationship of orlistat in normal and obese volunteers. Clin Pharmacol Ther 1994;56: 82-5.
18. Hauptman JB, Jeunet FS, Hartmann D. Initial studies in humans with the novel gastrointestinal lipase inhibitor Ro 18-0647 (tetrahydrolipstatin). Am J Clin Nutr 1992;55:309S-13S.
19. Okada S, York DA, Bray GA, Erlanson-Albertsson C. Enterostatin, (Val-Pro-Asp-Pro-Arg), the activation peptide of procolipase selectively reduces fat intake. Physiol Behav 1991;49(6):1185-9.
20. Hirsch B. Review of antiobesity medications currently under development. Am J Bar Med 2000;15(2):16-23.
21. Novi RF, Lamberto M, Mantovan M, Porta M, Molinatti GM. The role of an opioid antagonist in the treatment of obesity: results of a randomized, placebo-controlled, double-blind trial. Curr Ther Res 1992;51(4): 576-81.
22. Cooper SJ, Dourish CT, Clifton PG. CCK antagonists and CCK-monoamine interactions in the control of satiety. Am J Clin Nutr 1992;55:291S-5S.
23. Liu J, Askari H, Dagogo-Jack S. Basal and stimulated plasma leptin in diabetic subjects. Obes Res 1999;7(6):537-44.

## *Suggested Reading*

Asher WL, Dietz RE. Effectiveness of weight reduction involving "diet pills". Curr Ther Res 1972;14:510-24.

Bouchard C, Tremblay A, Despres JP, et al. The response to long-term overfeeding in identical twins. N Engl J Med 1990;322 (21):1477-82.

Bray GA, Use and abuse of appetite-suppressant drugs in the treatment of obesity. Ann Intern Med 1993;119:707-13.

Bray, GA, Ryan DH, Gordon D, Heidingsfelder H, Cerise F, Wilson K. A double-blind randomized placebo-controlled trial of sibutramine. Obes Res 1996;4(3) (in press).

Bray GA, York DA. Hypothalamic and genetic obesity in experimental animals: an autonomic and endocrine hypothesis [review]. Physiol Rev 1979;51:598-646

Considine RV, Sinha MK, Heiman ML, et al. Serum immunoreactive-leptin concentrations in normal-weight and obese humans. N Engl J Med 1996;334:292-5.

Drent ML, Larsson I, Williamo T, et al. Orlistat (Ro 18-0647), a lipase inhibitor, in the treatment of human obesity: a multiple dose study. Int J Obes 1995;19:221-6.

Goldstein DJ. Individualizing pharmacologic therapy for weight reduction: the Lovan example. In: VanItallie, TB, ed. Obesity: New directions in assessment and management. Philadelphia: Charles Press, 1995:234-40.

Hirsch J. The treatment of obesity with drugs. Amer J Clin Nutr 1998;67:2-4.

Kissileff HR, Pi-Sunyer FX, Thorton J, Smith GP. C-terminal octapeptide of cholecystokinin decreases food intake in man. Am J Clin Nutr 1981;34(2):154-60.

Kramer MS, Lane DA. Aminorex, dexfenfluramine, and primary pulmonary-hypertension. J Clin Epidemiol 1998;51:361-4.

Morley JE. Neuropeptide regulation of appetite and weight. Endocr Rev 1987; 8:256-87.

National Heart Lung Blood Institute Clinical guidelines on the identification, evaluation, and treatment of overweight and obesity in adults. Washington, DC: National Heart, Lung & Blood Institute, 1998.

Stock MJ, Dulloo AG. Ephedrine, xanthines, aspirin and other thermogenic drugs to assist the dietary management of obesity. Int J Obes Relat Metabol Disord 1993;17(Suppl 1):1S-83S.

Thomas PR, ed. Weighing the options: criteria for evaluating weight-management programs. Washington, DC: National Academy Press, 1995.

Tonstad S, Pometta D, Erkelens DW, et al. The effects of gastrointestinal lipase inhibitor, orlistat, on serum lipids and lipoproteins in patients with primary hyperlipidaemia. Eur J Clin Pharmacol 1994;46:405-10.

Weintraub M, Bray GA. Drug treatment of obesity. Med Clin North Am 1989;73: 237-50.

Wozniak P, Cutshall LC, Ryan DH, Bray GA. A meta-analysis of some anorexiant drugs. JAMA 1997 (in press).




MMIC CONSULTING...FOR THE INFORMATION SIDE OF YOUR BUSINESS

### Information systems designed with your unique needs in mind

Our experts understand the nuances of your healthcare business; in fact, it's our specialty. We'll work with you, assessing your current systems, and recommending cost-effective solutions. From software selection to its tactical implementation, we'll partner with you every step of the way including re-engineering your workflow to assure the complete success of your new system.

### Solutions that support your data infrastructure

Creating an efficient and private data infrastructure which allows your computers, users and application software to communicate with each other is essential. Our trained and certified technicians will install, configure and fine-tune your network to meet your communication needs.

***To learn more about MMIC Consulting, call 1-800-328-5532 or visit us at www.mmicconsulting.com***

### A full spectrum of Internet services

MMIC Consulting can expertly develop and host your Web site. We can also set up your Intranet or Extranet. Our secure servers meet all HIPAA security standards, so you can rest assured your environment is safe. We'll also monitor each aspect of system performance and support your user community with training and help desk services.

MMIC

MMIC Consulting is the IT consulting operation of Midwest Medical Insurance Company

# The Diet Prescription for Obesity

## *What Works?*

Karen B. Holtmeier, M.P.H., R.D., L.N., and Harold C. Seim, M.D., M.P.H.

ABSTRACT

**Obesity is a chronic disease, and in most cases weight reduction is the first treatment for its concomitant conditions of hyperlipidemia, diabetes, and hypertension. Weight-reduction diets are controversial in both the popular press and among clinicians treating hyperlipidemia and obesity. Both high-carbohydrate/low-fat and higher-protein/low-carbohydrate diets will produce loss of body fat if the calorie level is low enough. But selecting effective diet prescriptions for bariatric patients requires understanding of both the science and art of nutrition. Low-calorie diets, protein-sparing modified fasts, and modified-carbohydrate diets seem to be the most effective for patient compliance, and modified-carbohydrate plans are probably necessary for maintenance of the weight loss.**

Obesity is epidemic in the United States, and its treatment is highly controversial. Medical experts have recommended high-carbohydrate, low-fat diets; popular books promote high-protein, low-carbohydrate eating plans; and some clinicians even recommend no treatment. "Don't even try," they say. "It's hopeless. The weight will just come back." Newer recommendations for the dietary treatment of obesity are emerging, but are not yet well-understood or widely practiced. The science of insulin resistance is well-documented, but its diagnosis and dietary treatment remain controversial. Low-calorie diet prescriptions are easy to write and hand to the patient, but patient compliance is more difficult to achieve. Why do patients comply or fail with certain dietary prescriptions, and what are the appropriate recommendations? This article reviews different dietary approaches to weight loss, their effectiveness, advantages and disadvantages, compliance factors, and long-term weight-maintenance plans.

### *Insulin Resistance*

Obese individuals are almost certain to be insulin resistant. Diagnosing insulin resistance, however, is difficult, expensive, and not available in many clinics. The gold standard for diagnosis, the insulin clamp, is invasive and impractical. Using fasting serum insulin levels, as some practitioners do, are also expensive. Therefore, many clinicians rely on information obtained from histories, examinations, and other laboratory values.

For some individuals with insulin resistance, blood glucose is elevated and impaired glucose tolerance and diabetes are indicators (impaired glucose tolerance: FPG>110 and <125 mg/dl; type 2 diabetes: FPG> 126 mg/dl). Blood pressure greater than 140/90 is an indicator, as is a waist measurement of 35 in or more in women and 40 in or more in men. Central obesity (apple shape) also suggests insulin resistance. Elevated triglycerides (>200 mg/dl), elevated LDL (>130 mg/dl), and low HDL (<30 mg/dl) are common indicators of insulin resistance.

Patients frequently have a family history of obesity, type 2 diabetes, cardiovascular disease, childhood obesity, and/or chronic dieting. A family or personal history of depression and alcoholism is commonly seen. Also common are the symptoms of low blood sugar, such as headaches, irritability, fatigue, or falling asleep after meals (sometimes described as "crashing").

When patients understand that high levels of insulin generally stimulate hunger, they feel encouraged. Knowing that their obesity is a physiological problem and not just a lack of will power motivates patients and enhances their self-esteem. This information is also helpful in determining the most promising diet approaches.

### *Determining the Appropriate Diet*

Insulin resistance imposes physiological conditions that make weight loss difficult. High levels of circulating insulin inhibit lipolysis (the breakdown of fat) and promote fat storage. Clearly, if a diet is hypocaloric, patients will lose weight. But with what sort of comfort and ease?

### *Nutrient Composition*

Specific nutrient compositions of diets can bring about successful weight loss in individuals with insulin resistance. When asked what the diet composition for patients with

Syndrome X should be, Stanford University's Gerald Reaven, M.D., stated that substituting carbohydrates and sugars for fats in an isocaloric diet is not a good solution.[1] Ronald Krauss, M.D., chair of the American Heart Association nutrition subcommittee, has stated that universal recommendations for low-fat diets may not be helpful to everyone and could be harmful to some individuals (referring to those with atherogenic, small, dense LDL particles).[2]

Popular diet books have promoted low-carbohydrate diets with 40% carbohydrate, 30% protein, and 30% fat. As far back as 1991, Coulston et al. showed that diets in which 40% of calories are from fat (emphasizing monounsaturated fats) were helpful for type 2 diabetics.[3] More recently, Coulston has recommended that 50% of calories come from carbohydrates.[4] Reaven has recently recommended a diet prescription for 45% of calories from carbohydrates, 40% from fat (emphasizing monounsaturated fats), and the remaining from protein.[1] Research shows Coulston's and Reaven's plans are effective for type 2 diabetics. Many popular diet books also suggest lowering carbohydrate intake for insulin resistance.

## *Eating Patterns*

Specific eating patterns also affect the individual's physiological response to a diet. Distribution of calories at each meal, including different types and amounts of carbohydrates, and nutrient composition of meals may affect a person's hunger level. Fruit, milk, and starches contain sugars that break down differently and may cause varying degrees of insulin stimulation. Timing meals every 3 to 4 hours, and not closer, is very important. The frequent eating of carbohydrate snacks stimulates insulin to get the blood sugar into cells and restore normal blood glucose levels. In individuals who have high levels of circulating insulin, the increased insulin production interferes with the body's ability to use stored fat, and its presence also stimulates hunger. The individual is likely to eat another carbohydrate snack, creating a vicious cycle.

Bonnie Modugno, M.S., R.D., who first described the treatment of insulin-resistant patients in 1995, recommended severely restricting carbohydrates initially in those presenting with intense responses to starch and sugar, and then gradually adding them back into the diet.[5] She also suggested limiting carbohydrates at breakfast, indicating that starch intake later in the day seems to be less destabilizing. This is a common strategy in the dietary treatment of gestational diabetics.

Protein-sparing modified fasts (PSMF) and low-calorie diets are two practical variations of interventions that can initiate weight loss. They decrease hunger and, in most cases, simplify the diet for patients by limiting choices. Taste and nutrient composition clearly affect patient acceptance of these diets. As patients near their weight goal, they can be instructed on diabetic exchanges and a controlled-carbohydrate meal plan for continued weight loss and ongoing weight maintenance.

## *Low-Fat, High-Carbohydrate Diets*

Low-fat, high-carbohydrate diets have been shown to be effective in reducing lipid levels and heart disease. High-carbohydrate diets use mostly plant-based foods.

The Ornish diet plan has been reported to reverse heart disease.[6] It prescribes 10% of calories from fat, no meat or dairy foods, no refined sugars, and high-complex-carbohydrate foods such as vegetables and starches. The program emphasizes group support of behavior change and stress management, and Ornish also focuses on the importance of love and relationships in a person's life.

The Pritikin diet is an older treatment program similar to the Ornish plan in that it requires a total lifestyle change, not just a dietary change.[7] Like the Ornish plan, it includes low-fat, high-complex carbohydrates with small amounts of chicken or fish.

Vegetarian diets may or may not include animal products. They are usually high in carbohydrates, but not necessarily low in fat or calories. Frequently, adolescent girls may try to lose weight by following what they believe are vegetarian diets. However, they may be unsuccessful because they eat large quantities of cheese and carbohydrate foods, which are high in calories.

Until its newest guidelines were released in the October 31, 2000 issue of *Circulation* (in press when *Minnesota Medicine* went to press), the American Heart Association diet, which does not endorse widespread consumption of very low-fat diets, recommends that 25% to 30% of calories come from fat and 50% to 60% of calories come from carbohydrates.[8] Their Step 1 diet, recommended for all Americans older than 2 years, specifies that only 10% of fat calories come from saturated fats. The Step 2 diet, recommended for those with known heart disease or risk factors for heart disease, differs only by limiting saturated fat to less than 7% of total calories and restricting dietary cholesterol to 200 mg per day. The new guidelines focus less on percentages and more on foods. Prevention of obesity is also emphasized for the first time.

The Weight Watchers program uses a high-fiber, low-fat diet.[9] Participants control their calorie intake through a point system but have flexibility in selecting the foods they prefer. The plan seems to be effective for many people initially because of the caloric restriction. However, the program's new POINT® system seems to give the participant freedom to choose foods based on calories alone and not on nutrient composition. "It just didn't work," they will say. The new plan may not be as effective for people with insulin resistance, since the high-carbohydrate content stimulates insulin production, which creates a feeling of hunger. Members may not be able to comply because they feel "obsessed" with food.

## *Patient Acceptance and Compliance*

Patient acceptance and compliance are important aspects of diets. Are the plans practical? Do they satiate? What are their metabolic effects? Are they sustainable over time?

The Ornish and Pritikin programs are relatively easy to follow for pa-

tients at live-in programs where they are busy, entertained or educated, and given snacks in the morning and afternoon. But when they return home and are responsible for their own food preparation and choices, compliance is more difficult. Preparing vegetables and special breads is a chore that many individuals are unable or unwilling to do, despite their best intentions.

Table

***Exchange Lists: Foods are listed with their serving sizes, which are usually measured after cooking. The following chart shows the amount of nutrients in one serving from each list.***

| Groups/Lists | Carbohydrate (g) | Protein (g) | Fat (g) | Calories |
|---|---|---|---|---|
| **Carbohydrate Group** | | | | |
| Starch | 15 | 3 | 1 or less | 80 |
| Fruit | 15 | | | 60 |
| Milk | | | | |
| Skim | 12 | 8 | 0–3 | 90 |
| Low-fat | 12 | 8 | 5 | 120 |
| Whole | 12 | 8 | 8 | 150 |
| Other carbohydrates | 15 | varies | varies | varies |
| Vegetables | 5 | 2 | | 25 |
| **Meat and Meat Substitute Group** | | | | |
| Very lean | | 7 | 0–1 | 35 |
| Lean | | 7 | 3 | 55 |
| Medium-fat | | 7 | 5 | 75 |
| High-fat | | 7 | 8 | 100 |
| **Fat Group** | | | 5 | 45 |

*The exchange lists provide a lot of food choices (foods from the basic food groups, foods with added sugars, free foods, combination foods, and fast foods), offering variety in your meals. Several foods, such as fried beans and peas, bacon, and peanut butter, are on two lists. This gives flexibility in putting meals together.*

*©1995, American Diabetes Association and the American Dietetic Association.* "Exchange Lists for Meal Planning." *Reprinted with permission.*

## *Higher-Protein, Low-Carbohydrate Diets*

Some popular diets are actually high in protein and high in fat, but use of low-fat meat and dairy products can keep the fat content of the plan in reasonable ranges. In fact, the high-protein diets don't use large amounts of meat, by ounce, but the meat may represent a high percentage of total calories, because the carbohydrate and/or fat content are low. Consuming a high-protein diet causes many people to go into ketosis. As a result, they lose their appetite and actually do eat fewer calories, which allows them to lose weight. For obese people who have been maintaining or gaining weight on 3,000 cal per day, the actual amount of meat or protein they eat is about the same as a medically managed diet, but they eat fewer accompaniments (starches, sugars, and fats) and thus consume fewer calories. Because the popular press has emphasized cutting down on fat by reducing meat, it has become common to serve whole meals of pasta or rice with little or no meat, giving the perception of a lower-calorie meal. Meals that use refined starches and sugar in place of fat offer less satiety, and people eat larger quantities to feel full.

The recommended dietary intake for protein is .8 g/kg, which is about 50 g.

## *Popular Diet Books*

Currently, popular diet books include "The Zone,"[10] "Protein Power,"[11] "Sugar Busters,"[12] "Dr. Atkin's New Diet Revolution,"[13] and the "Carbohydrate Addict's Diet,"[14] among others. These books, which may contain a mixture of fact and fiction, tend to imply that they are presenting definitive answers and exact rules. They often include incorrect science and use simple explanations of complex concepts that most researchers would debate. An example is the glycemic index. Use and interpretation of the glycemic index is somewhat controversial. Nutritionists explain that the glycemic effect of a food depends upon what is eaten with a particular food, when blood glucose is measured, and other factors, including such individual metabolic responses as gastric emptying and insulin production. Authors who are not experts in nutrition may interpret the glycemic index literally, stating that carrots and bananas are high in sugar and should be avoided, when reasonable portions might be very appropriate. Do carrots and broccoli cause high blood-sugar levels? Probably not.

The eating plans recommended in most of these books are complicated, using uncommon portions of foods in specific combinations that are often confusing and not necessarily appropriate. The plans in these books often require a lot of time-consuming planning and preparation.

## *Medically Monitored Diets*

Types of medically monitored diets include protein-sparing modified fasts, low-calorie diets (LCD), and diabetic-exchange diets.

Protein-sparing modified fasts are diets that promote the burning of body fat. Protein requirements for dieting women are 1.2 g/kg of ideal body weight (IBW) and 1.4 g/kg of IBW for men. That is the equivalent of 75 g to 114 g of protein. PSMFs use high biological value protein, usually animal protein that contains all the essential amino acids. What does this mean in food equivalents? An ounce of "meat"—including lean red meats, fish, chicken, cheeses, and eggs—contains 7 g of protein. The protein requirements of 75 g to 114 g would be approximately 10 oz to 16 oz of food protein products. Other foods allowed on the PSMF are salad (raw vegetables, lettuce, greens), low-calorie cooked vegetables such as green beans, broccoli, and carrots), and no starchy vegetables such as peas, corn, and potatoes. Protein gives satiety and also stimulates glucagon, a hormone that counters insulin. When used in a PSMF, it can contribute to the decreased hunger resulting from mild ketosis.

Suggested daily menu for PSMF (3 meals plus a snack)

Breakfast: 2 eggs, 1 oz to 2 oz Canadian bacon

Lunch: Chef's salad—2 oz turkey, 1 oz to 2 oz cheese

Dinner: 4 oz to 8 oz cubed steak, green beans, salad/fat-free dressing

Researchers at the VA Hospital in Minneapolis have shown that beef does not increase blood sugar as much as carbohydrates do in comparable amounts. The American Diabetes Association has funded these researchers' 3-year study (currently in progress) of high-protein diets: 40% carbohydrate, 30% protein, and 30% fat. The researchers report that study participants eating the high-protein test diet say that it is "too much food," affirming the perception that protein is filling.

## *Low-Calorie Diets*

LCDs have 800 or more kilocalories. Research has shown that weight loss is about the same on 800 cal per day as on the older 400 cal to 500 cal versions. This is probably because it is easier to comply with the higher-calorie diet. Also, the metabolic rate slows more on a lower-calorie diet. Many people do well on 1,000 cal to 1,200 cal when they use a formula or supplement.

## *Medical Foods, Neutraceuticals, Functional Foods*

Specially formulated bars, cookies, puddings, soups, muffins, and drinks have been developed for dieters, adding variety to medically monitored diets. While they may seem like common foods, these medical foods usually have altered sweeteners, added protein, and, sometimes, added vitamins and minerals. Types of sweeteners, including sucrose, lactose, fructose, and sugar substitutes, may influence stimulation of insulin to varying degrees. Types and amounts of protein and the ratio of carbohydrate to protein may also make a difference in the physiological response to these medical foods. With the addition of these foods in their diets, patients may feel less deprived and better able to comply with a low-calorie diet.

## *Exchange Diets*

Although carbohydrate counting is probably the most popular method used for the diabetic diet, exchange diets can be used effectively to create

## *Syndrome X*

The insulin-resistance syndrome was popularized by Gerald Reaven, M.D., in his Banting Lecture in 1988. He stated that insulin resistance is present in the majority of patients with impaired glucose tolerance and type 2 diabetes, and in about 25% of nonobese individuals with normal glucose tolerance. In these conditions, glucose intolerance can be prevented only if the pancreas is able to secrete enough insulin to maintain a state of chronic hyperinsulinemia. If this does not happen, free fatty acid (FFA) concentrations will not be suppressed normally and higher FFA levels will lead to increased hepatic glucose production. In insulin-resistant people, even small increases in hepatic glucose production are likely to lead to significant fasting hyperglycemia. Reaven also noted that people with hypertension, whether treated or untreated, are insulin resistant, hyperglycemic, and hyperinsulinemic. There is also a direct relationship between serum insulin level and blood pressure. Further, insulin resistance and hyperinsulinemia are involved in the etiology of three major related diseases, namely type 2 diabetes, hypertension, and coronary artery disease. With obesity and elevated lipids added, this syndrome has been called Reaven's Syndrome, the "deadly quartet," diabesity, or Syndrome X.

Clinically, in addition to the diseases noted above, these patients often have polycystic ovary disease and calcium oxalate kidney stones. They frequently have a history of failing at numerous weight-loss attempts. Their history includes craving carbohydrates, being "addicted" to sugar, falling asleep after meals, and feeling fatigued and "always hungry." Physical examination generally shows apple-shaped obesity (waist circumference greater than 40 in in men and greater than 35 in in women), acanthosis nigricans, skin tags, ear lobe creases, arcus senilis, hirsutism in females, and elevated blood pressure. Laboratory findings often include elevated uric acid, elevated triglycerides, low HDL, often-normal glucose and normal total cholesterol, elevated fasting insulin, and/or elevated 2-hour post-prandial insulin following a 75-g glucose load. Low magnesium and DHEA levels and a high serum ferritin also may be associated with Syndrome X.

"modified" or "controlled" carbohydrate diets. Diabetic exchanges are commonly used, understandable, internationally accepted, and standardized. The portions are similar to those on "Nutrition Facts" food labels and are based on common serving sizes such as ½ cup, 1 piece, or 1 oz. The nutrient composition of the diet can be closely estimated using the exchange lists, allowing the diet to be tailored to the patient's food preferences.

## *Food Plans for Maintenance*

Determining a weight-maintenance food plan is a matter of trial and error, but using height and weight and multiplying by patient activity level is one standard way to determine calorie level. Another effective way is by using food records. Patients can monitor their caloric intake along with their weight and use the calorie level that maintains their weight. Other maintenance methods may include following a weight-reduction (lower-calorie level) plan during the week and allowing extra calories (such as a dessert or an alcoholic beverage) on the weekend.

Educating patients about the physiology of obesity can greatly improve their success at weight loss and weight maintenance. When patients know that their condition has a physiological base and is not just in their heads, they feel affirmed and empowered. It is helpful to patients when physicians identify the symptoms of the presence of insulin—fatigue, headaches, hunger, weight gain, edema, and bloating. Knowing what, when, and how to eat helps them treat their condition.

## *Summary*

Patients probably have a genetic predisposition for insulin resistance, but environmental factors are extremely influential in the expression of those genes. Nutrient composition and structure of diet, exercise, behavior modification, and stress management are all components of weight-loss maintenance. Patient education regarding these factors, especially the physiology and the nutrient composition of the diet, will give patients a better chance to be successful in long-term weight-loss maintenance. MM

*Karen Holtmeier is an owner and medical nutrition therapy director of the Medical Weight Management Center in St. Paul. Harold Seim is owner and medical director of the Medical Weight Management Center and a former faculty member at the University of Minnesota.*

### References

1. Reaven G, Strom T, Fox B. Syndrome X: overcoming the silent killer that can give you a heart attack. New York: Simon and Schuster, 2000.
2. Dreon DM, Fernstrom HA, Williams PT, Krauss RM. LDL subclass patterns and lipoprotein response to a low-fat, high-carbohydrate diet in women. Arterioscler Thromb Vasc Biol 1997;17:707-714.
3. Hollenbeck CB, Coulston AM. Effects of dietary carbohydrate and fat intake on glucose and lipoprotein metabolism in individuals with diabetes mellitus [Review]. Diabetes Care 1991;14(9):774-85.
4. Coulston AM. Insulin resistance: its role in health and disease and implications for nutrition management. Topics in Nutrition, No. 6. Hershey Foods Corporation, Sep. 1997.
5. Modugno B. Insulin resistance: a new paradigm for medical nutrition therapy and nutrition education. SCAN's Pulse 1995;14(4).
6. Ornish D. Eat more, weigh less. New York: HarperCollins, 1993.
7. Pritikin R. The new Pritikin program: the easy and delicious way to shed fat, lower your cholesterol, and stay fit. New York: Pocket Books, 1991.
8. Krauss RM, Deckelbaum RJ, Ernst N, et al. Dietary guidelines for healthy American adults. A statement for health professionals from the Nutrition Committee, American Heart Association. Circ – J Am Heart Assoc 1996;94(7)1795-1800.
9. 1•2•3 Success® plan, Weight Watchers, International. Available at: www.weightwatchers.com. Accessed September 2000.
10. Sears B. The zone. New York: HarperCollins, 1995.
11. Eades MR, Eades MD. Protein power: the high-protein/low-carbohydrate way to lose weight, feel fit, and boost your health—in just weeks. New York: Bantam Books, 1996.
12. Steward HL, Bethea MD, Andrews SS, Balart LA. Sugar busters! New York: Ballantine, 1995.
13. Atkins RC. Dr. Atkin's new diet revolution. New York: HarperCollins, 1996.
14. Heller RF, Heller RF. The carbohydrate addict's diet: the lifelong solution to yo-yo dieting. New York: HarperCollins, 1993.

LOOKING FOR LOCUM TENENS?

LOOK FOR THE FRIENDLY DOCTOR



Whitesell
Medical Locums, Ltd.

Benefits for the Hospital/Clinic:
- Highly qualified physicians that are B.E./B.C.
- Fill your positions during illness, vacation and understaffing.
- Prevent loss of revenue.
- We handle all administrative details.
- Competitive rates

Benefits for the Physician:
- Experience a complete range of practice styles.
- Fully paid malpractice insurance
- Explore options or new services before making permanent decisions.
- A chance for senior physicians who no longer desire the responsibility of running a practice to stay clinically active.

Metro 763-682-5906
Toll Free 800-876-7171
Fax 763-684-0243
Web www.mnlocums.com

There's a life to be saved right now.

Please give blood.

Call 1-800-GIVE-LIFE



American Red Cross

## ANNOUNCEMENTS



### Attend Secondhand Smoke Conference

Minnesota's first conference on clearing the air of secondhand smoke will by held November 30 through December 1 at the Airport Hilton in Bloomington.

Attendees will learn strategies to protect their communities from secondhand smoke.

Special guests include Stan Glantz, Ph.D., Richard Hurt, M.D., and Cynthia Hallett of Americans for Nonsmokers' Rights.

For more information, or to register, call Cathy Angell at 763/427-5310.

### U of M Gets Grant for Complementary Care

The National Institutes of Health have awarded the University of Minnesota Center for Spirituality and Healing a $1.6 million grant to build and support a curriculum in complementary and alternative medicine.

The center competed with 30 other universities for the grant.

# Governor's Big Plan Includes Health Care Tax Reform

Minnesota Medical Association representatives heard details of Governor Jesse Ventura's Big Plan at an October 23 meeting at the Minnesota Department of Revenue. Matt Smith, commissioner of revenue, Jan Malcolm, commissioner of health, and Michael O'Keefe, commissioner of human services, shared some of the governor's health care related proposals.

The governor proposes to use state money to replace $900 million in education funding that is currently supported by local property taxes. This would create a significant hole in the state's budget, making it necessary to find new revenue sources. One option being considered is to broaden the state's sales tax base to include non life-essential services—including non life-essential medical services. Another option would be to remove the nonprofit tax status of many organizations, including hospitals.

Ventura's overall goal is to apply taxes uniformly, says Smith.

Malcolm and O'Keefe explained the governor's plans for health care funding and health care tax reform. These reforms would help finance Ventura's goals of expanding health care access to children and minorities.

### Provider Tax

Ventura supports continuation of the provider tax. He has not proposed at what rate, but Malcolm says it is unlikely to be increased from its current 1.5 percent. The tax rate decision will be based on the next forecast of available state money.

### Excise Tax on Cigarettes and other Tobacco Products

Ventura supports increasing the excise tax on tobacco to promote public health benefits such as decreasing smoking rates.

Minnesota ranks 20th in the nation on tobacco taxes, collecting 48 cents on each pack of cigarettes. An increase of 10 cents per pack would bring in approximately $33 million. An increase of 25 cents would yield $79 million.

### Beer and Wine Excise Tax

The governor also supports increasing the excise tax on beer and table wine. Minnesota's current excise tax rate on beer and table wine ranks 30th in the nation, bringing in less than $20 million annually.

### Nonprofit Health Plan Premium Tax

The governor wants to repeal the 1 percent premium tax because it falls on a narrow tax base. The tax is currently suspended until 2003.

### Wholesale Drug Tax

Ventura will seek to repeal the 1.5 percent tax applied to wholesale drug distributors and others who sell prescription drugs in Minnesota. This revenue could be replaced with a tax on retail prescription drugs sales.

### Medical Assistance Surcharge

This tax on hospitals and surgery centers would remain at 1.56 percent.

*BIG PLAN cont. on page 35*

# VIEWPOINT

**Robert K. Meiches, M.D.**
*Chair, MMA Board of Trustees*



## MMA Listens to Members as it Sets Priorities

The MMA Annual Meeting gave delegates an opportunity to speak out on a number of hotly debated issues and to vote on 43 resolutions. This exchange of ideas is a valuable way to clarify MMA strategy and advance our mission.

Central themes emerging from the Annual Meeting echo those of Initiative 2000, in which component and specialty societies as well as individual physicians identified the most important MMA goals.

There was wide agreement that repeal of the sick tax remains a high priority for Minnesota physicians.

There was also a strong commitment to support Minnesota academic health centers and to participate in the University of Minnesota's 2000-01 legislative attempt to expand its funding base. These efforts are meant to ensure the state has an adequate work force of physicians and other health care professionals.

Some of the other priorities identified in Initiative 2000—such as affordability and access, payer relations and contracting issues, and patient protections—encompass a wide range of specific goals and resolutions. Our challenge is to focus our efforts. The MMA Board of Trustees is in the process of setting priorities, allocating resources, and identifying work plans and clear expectations for outcomes. Using member input from Initiative 2000 and the MMA Annual Meeting, we will make certain the MMA uses its time, efforts, and resources to focus on the most critical goals.

Recent events have pushed two issues to the center of the MMA's radar screen. As you may know, the MMA has been working with the Minnesota Council of Health Plans and the Minnesota Hospital and Healthcare Partnership to form a joint purchasing coalition that will select a preferred vendor of credentialing verification services for Minnesota physicians. Recently, Expert Practice, which currently collaborates with Hennepin and Ramsey medical societies to provide credentialing in the Twin Cities area, announced that it will close its doors on December 1, 2000. This decision makes it important that the MMA collaborate with Hennepin and Ramsey medical societies to respond to the needs of Twin Cities-based physicians and hospitals, and to move forward with plans for the joint purchasing coalition.

The second issue involves patient protection. Even before the release of the Institute of Medicine report, "To Err is Human," the MMA was advocating a "systems" approach to avoiding mistakes. Now, the MMA, Minnesota Hospital and Healthcare Partnership, and the Minnesota Department of Health, have announced the creation of the Minnesota Alliance for Patient Safety or MAPS, a coalition of more than 50 health organizations working together to minimize accidents. The brochure "Redefining the Culture for Patient Safety" outlines an approach designed to find out why an accident occurred and how to prevent a recurrence. It recommends asking, "What happened?" rather than, "Who's to blame?"

In other patient protection efforts, the MMA has been working through the Minnesota congressional delegation to support a strong national patients' bill of rights. MEDPAC has endorsed and supported candidates who understand the importance of this legislation.

As you see, the MMA is working hard for you and your patients. We invite you to be active in our efforts this coming year.

# Hatch Sues BCBSM for Denying Children Mental Health Coverage

On October 3, Minnesota Attorney General Mike Hatch filed a lawsuit against Blue Cross and Blue Shield of Minnesota, challenging what he calls a "pattern of misconduct" by the insurer in denying mental health treatment to children.

Hatch says Blue Cross violates insurance and fraud laws by regularly refusing to pay for medically necessary treatment for children with mental illness, eating disorders, and chemical dependency, despite providers' recommendations.

The complaint asks the court to order Blue Cross to stop the practice of denying medically necessary mental health services to children, to pay civil penalties, and to make restitution to consumers.

"It is wrong for any HMO or health insurer to deny coverage for medically necessary health care treatment," says Hatch. He says the wrongdoing is exacerbated when the denials are imposed on children who need mental health services. "The families of these children aren't always in a position to recognize the scope of their problems and certainly aren't in a position to fight back against an insurer that restricts access to care," he says.

The lawsuit alleges that Blue Cross routinely attempts to avoid coverage obligations by instructing parents to have their children suffer "legal consequences." He says the insurer also suggests parents make use of the juvenile justice system rather than provide medically necessary health care treatment.

The lawsuit also alleges that Blue Cross subjects Minnesota youth and their families to a "barrage of unwarranted delays, unlawful excuses, and unnecessary hurdles" in attempting to get coverage for mental illness.

Although other insurers in the state engage in similar practices, Blue Cross has been the subject of the most consumer complaints, says Hatch.

Blue Cross has not yet filed its response to the charges.

Minnesota Medical Association staff have been in contact with the attorney general's office regarding the lawsuit and may be asked to assist by providing an amicus curiae brief or expert witnesses.

*BIG PLAN from page 33*

The surcharge is used to leverage federal Medical Assistance funding.

The future of the sick tax, which is shown to lead to higher health care costs and health insurance premiums, is still uncertain, says Dave Renner, MMA director of state and federal legislation. House Republicans and Democrats have vowed to seek repeal of the state's health care taxes, but any proposed legislation would need support from Senate Democrats or the governor to be successful.

"The good news is that the sick tax probably would not increase—and may even decrease—under the governor's plan," says Renner. "But based on the regressive and unfair nature of this tax, we will continue to promote total repeal as the best solution for all Minnesotans."

# Little Falls Goes Smoke Free

On October 17, Little Falls became the third Minnesota city—following Moose Lake and Duluth—to ban smoking in restaurants.

The Little Falls City Council heard the views of citizens on both sides of the issue before voting 5 to 3 in favor of the proposed ban. While non-smokers asserted their rights to breathe clean air, some business owners argued that the ban would infringe on their rights and could negatively affect their revenues. A few owners of voluntarily smoke-free establishments spoke in favor of a ban, citing positive benefits to employees and nonsmoking customers.

The ordinance, which becomes effective November 22, also outlaws smoking in public buildings and city-owned vehicles.

On April 5, Moose Lake became the first city in Minnesota to prohibit smoking in all restaurants. The Duluth City Council passed a ban limiting smoking in the city's restaurants on June 13.

Last summer, the Hennepin County Board of Commissioners voted to ban smoking within a 15-yard radius around entrances to all county buildings and designated some covered outdoor areas as smoke free.

The MMA 2000 House of Delegates passed a resolution calling on the MMA to support passage of local, county, and state ordinances prohibiting smoking in restaurants and bars, thus expanding the coverage of the Minnesota Clean Air Act.

# Physicians Can Assist Torture Victims by Learning Signs, Symptoms

Physicians who see refugees and immigrants may not know when they are treating a survivor of torture. And physicians who suspect this type of trauma may not know how to address it with their patients in order to deliver the most appropriate care.

On October 20, the Center for Victims of Torture, along with cosponsors U-Care Minnesota, Park Nicollet Clinic, HealthPartners Institute for Medical Education, and other groups, held the third annual Caring for Torture Survivors conference. The conference objectives were to help health care and social service professionals identify and treat torture victims and traumatized refugee children; understand the types of care these individuals require; and learn what they can do to halt the practice of torture on an international level.

Plenary speaker Kathleen Culhane-Pera, M.D., M.A., said the challenges of providing culturally responsive care include treating patients who have lost their languages, countries, identities, and sometimes their families. Among these populations there may be victims of many types of violence, including torture, she says.

More than 100 countries are known to practice torture, which can be both physical and psychological in nature. People are tortured for a range of reasons, including their political party, ethnicity or tribe, views or suspected views, political activities, and material possessions. Some people are tortured for expressing a dissenting opinion—or for simply being in the wrong place at the wrong time.

An estimated 16,000 torture survivors live in Minnesota.

The conference included breakout sessions that addressed a number of topics. Center for Victims of Torture physician Kathleen Antolak, M.D., discussed how health care providers can identify torture survivors in their patient population.

Many torture victims are members of an at-risk population, such as refugees, immigrants, or asylum seekers. Individuals targeted for persecution are often college educated and very intelligent.

> "Reassure patients that their symptoms—both psychological and physical—are normal reactions to an abnormal life experience."
>
> *Kathleen Antolak, M.D.*
> *Center for Victims of Torture*

Torture victims may exhibit some of the following characteristics: (1) reluctance to divulge experiences in country of origin; (2) somatic symptoms with no known physical cause; (3) psychiatric symptoms, such as depression, nightmares, numbing, irritability, startling easily, difficulty concentrating, avoidance, and trouble sleeping; and (4) fearfulness of being examined or unexpectedly touched.

Although physical signs and symptoms may not be present, these may include scarring, headaches, musculoskeletal pain, pain in feet, back, or neck, fatigue, hearing loss, dental pain, pelvic and genital pain, sexual difficulties and infertility, and neurological problems.

For many survivors, pain and psychological symptoms subside after an exam and appropriate tests find that the brain, heart, eyes, and other organs are functioning properly and have sustained no permanent injuries, says Antolak.

Post-traumatic stress disorder is common among this population, and certain health care scenarios, even sitting in a waiting room, can trigger stress and panic. To help ensure that a patient is not re-traumatized in a clinical setting, health care providers should thoroughly explain procedures and proceed slowly.

Although the thought of treating torture survivors may seem overwhelming, Antolak says physicians can play a critical role in alleviating these patients' suffering and giving them hope.

"Reassure patients that their symptoms—both psychological and physical—are normal reactions to an abnormal life experience," says Antolak.

Physicians can validate the patient's experience by acknowledging that it was wrong. This may be the first time the survivor hears these words, which can bring tremendous relief, says Antolak.

Health care providers can help coordinate other resources for these patient to address their various needs. If a torture survivor is applying for political asylum, physicians can also provide lifesaving documentation of the patient's account of traumatic events.

The Minnesota Medical Association House of Delegate passed a resolution at its 2000 Annual Meeting calling on the MMA to educate physicians on how to document the physical and psychological effects of torture, if requested to do so.

# NEWS DIGEST

*People and places making medical news*



## People & Places

MMA board chair **Robert Meiches, M.D.,** has been elected to the **Medical Alley** Board of Directors. Meiches is vice president of medical affairs for **Fairview Health Services.** Physicians **Frank Cerra, M.D.,** senior vice president of the **University of Minnesota Academic Health Center,** and **James Woodburn, M.D.,** medical director for **Blue Cross and Blue Shield of Minnesota,** also joined the Medical Alley board.

The **Hennepin County Board of Commissioners** has appointed **Michael Belzer, M.D.,** to a third five-year term as director of **Hennepin County Medical Center.** Under his 10-year leadership, HCMC has seen a 65 percent resident-retention rate, and the number of interpreter-assisted visits has increased 30 percent, with over 75,000 patient visits a year.

**Benjamin Chaska, M.D.,** has been named chief medical officer and executive vice president of **Park Nicollet Health Services.** Chaska was chief medical officer of ambulatory care at **Oakwood Healthcare System** in Dearborn, Michigan, before joining Park Nicollet on September 1. Previously, he was founding chair of the Department of Family Practice at **St. Luke's Hospital, Mayo Clinic** in Jacksonville, Florida, and chief resident of family practice at **Mayo Clinic** in Rochester. He replaces **William Shimp, M.D.,** who retired from Park Nicollet on May 31.

The **National Kidney Foundation** has elected **William F. Keane, M.D.,** as its president for the 2000–2002 term. Keane is a professor and chair of the Department of Medicine, **Hennepin County Medical Center,** and vice-chair of the Department of Medicine at the **University of Minnesota Medical School** in Minneapolis.

The **Hennepin Medical Society** has named new officers for the fiscal year. **Virginia R. Lupo, M.D.,** of **Hennepin County Medical Center,** is chair. **David L. Swanson, M.D.,** from **North Clinic** in Robbinsdale, is president. **T. Michael Teford, M.D.,** of **Southdale Otolaryngology, P.A.,** is president-elect, and **Richard M. Gebhart, M.D.,** at **Camden Physicians** in Maple Grove, continues his second three-year term as secretary. **Michael B. Ainslie, M.D.,** from **Park Nicollet Clinic/HealthSystem Minnesota** continues as treasurer.

The **National Institutes of Health** has awarded a $1.6 million grant to the **University of Minnesota's Center for Spirituality and Healing** to bolster the center's curriculum in complementary and alternative medicine (CAM). The grant will enable the center to integrate CAM into its core curriculum in the schools of the **Academic Health Center.** Thirty other universities competed for the award, which was given to the university based on its long-standing tradition of teaching complementary medicine.

**Steven Rousey, M.D.,** of Waconia, and **Mark D. Hauge, M.D.,** of St. Cloud, have been appointed **Cancer Liaison Physicians** by the **Commission on Cancer** of the **American College of Surgeons.** Rousey and Hauge head the hospital cancer programs at **Ridgeview Medical Center** and **St. Cloud Hospital,** respectively. The two physicians join a nationwide network of 1,800 volunteers supporting Commission on Cancer activities.

The **Minnesota Council of Health Plans,** a trade association composed of 10 nonprofit health plans, has selected **Phil Griffin** of **PreferredOne** as its president and **Mark G. Mishek** of **Allina Health System** as its president-elect.

The **University of Minnesota** has opened the **Rasmussen Center for Cardiovascular Disease Prevention** to screen healthy individuals for artery and heart conditions that precede heart attacks, strokes, heart failure, and kidney failure. The center's initial screening includes analysis of blood and urine samples,

⇨

noninvasive assessment of stress blood pressure, large and small artery elasticity, artery wall thickness, heart chamber size, and lung function. A second, more extensive series of tests may be required to confirm the presence of a discovered abnormality. The center will be headed by **Jay N. Cohn, M.D.**, professor of medicine in the university's cardiovascular division.

The **National Cancer Institute** has awarded **University of Minnesota** professor of epidemiology **Jean Forster, Ph.D.**, $3.9 million to lead a three-year study of Minnesota teens' smoking habits. Researchers will survey more than 3,500 Minnesota young people, ages 12 to 16, every six months for three years about their tobacco use and attitudes.

Minnesota health care providers have received two of three first-ever **National Patient Safety Foundation** awards. **Steven Meisel, Pharm.D.**, assistant director of pharmacy, **Fairview Southdale Hospital,** Edina, received the Patient Safety Award for Innovative Clinical Solutions. Meisel led a program that reduced intravenous heparin errors in cardiac care units by 66 percent in four months. **Children's Hospitals and Clinics,** Minneapolis, received the Patient Safety Award for Patient Provider Communication Solutions. Children's encourages families to participate in patient care. It also provides counseling to families when a medical accident has occurred, analysis of each accident, protection for staff who promptly report accidents, and continuing patient safety education.

The **Minnesota Department of Health** gave **Hennepin County Commissioner Mary Tambornino** a Certificate of Recognition for her public health initiatives, including resolutions to streamline the health system budget and serve the mental health needs of children and their families. Tambornino chairs the **Association of Minnesota Counties' Human Services Policy Committee** and is a member of the **State Community Health Services Advisory Committee.**

Construction has begun on **Abbott Northwestern Hospital's** specialty care center in Sartell, Minnesota. The new 60,000 square-foot facility, which will include outpatient surgery, diagnostic imaging, and clinic space, is expected to open in the summer of 2001.

**Minnesota Primary Care Physicians (PCP)** and **Minnesota Specialty Physicians Inc.** have merged to form the **Minnesota Healthcare Network (MHN)**, the region's largest physician-directed health care system. MHN's 230 primary care physicians and 550 specialists will serve the Twin Cities metro area, rural Minnesota, and western Wisconsin.

The **Park Nicollet Jane Brattain Breast Center** has expanded and added new services, including full-field digital mammography. The center offers other screening services, minimally invasive biopsies, on-site surgeons for consultations and minor surgery, advanced-practice nurses, and a breast resource center.

**Suburban Imaging** has opened new medical imaging centers in Maple Grove and Edina. Both centers provide diagnostic services, including high field MRI, helical (spiral) computed tomography, and ultrasound. **Suburban Radiologic Consultants, Ltd.**, provides radiology services; **James Kollitz, M.D.**, is medical director at the Maple Grove center, and **Dan Loes, M.D.**, is medical director at the Edina site.

The **University of Minnesota Youth and AIDS Projects** (YAP) has received a $220,000 grant from the **Minnesota Department of Health** to develop a tobacco-prevention plan for gay, lesbian, bisexual, and transgender (GLBT) youth. YAP will work with other agencies to create an advisory group, develop an antismoking plan specific to GLBT youth, and enlist young people who are willing to serve as nonsmoking role models, provide referrals to smoking-cessation programs, and promote smoke-free environments.

## Public Health



### Police Halt Distribution of Faulty Gun Locks

The **St. Paul-Ramsey County Department of Public Health** is recommending that police suspend distribution of cable gun locks to citizens. The locks, which resemble bicycle cable locks, have been known to spring open when bounced in the hand. Almost 1,000 of these locks, provided by the national safety program **Project HomeSafe**, have been distributed throughout the city. In August, officials for St. Paul's safe gun storage campaign, which began in May 2000, also halted the distribution of trigger locks manufactured by the Master Lock Co.



# Socioeconomics

### State Sues BCBS for Poor Juvenile Mental Health Treatment

Attorney General Mike Hatch is suing Blue Cross and Blue Shield of Minnesota for its handling of claims for mentally disturbed children and juveniles. Hatch charged that Blue Cross counsels parents to put their children in the juvenile justice system and foster care; in this way, BCBS avoids paying for inpatient mental health services. Hatch is also investigating how Medica and HealthPartners handle such claims. An estimated 20 percent of children suffer from mental disorders.

### Drug Costs Main Culprit in Rising Medicare HMO Costs

Citing rising drug costs and concerns about financial insolvency, Twin Cities–area Medicare HMOs are raising their premiums. Medicare HMOs that don't offer drug benefits are also increasing prices, and some benefits are disappearing altogether. Many seniors are now leaving the plans as a result of the increases; there are now just 45,000 seniors in Twin Cities Medicare HMOs, down from 56,000 in 1996, and more than 100,000 10 years ago.

### Fairview to Consolidate or Close Six Clinics

Fairview Health Services will close six of its clinics by early 2001, citing the market's uncertain financial picture. Fairview's Staub Pediatric Clinic in Fridley, Nicollet Mall Clinic in Minneapolis (including the Riverside Women's Clinic), Savage Clinic, HealthWorks Clinics in Minneapolis and Bloomington, and Spine Care and Rehabilitation Clinic in Edina will close. No other Fairview clinics are affected.

### Abortion Report Draws Criticism

A report on abortions in Minnesota issued by the state Department of Health has provoked criticism from those who claim that it serves no public health interest and that no similar data exists for other types of surgeries. (Two years ago, legislation was passed to expand the information doctors must report about each abortion they perform.) According to the report, 14,342 abortions were performed in Minnesota last year, mostly in Hennepin and Ramsey counties. Fifty-seven percent of women paid for the abortions themselves; 24 percent were covered by insurance, and 19 percent were covered by public assistance. The most common reason women gave for having an abortion was that they did not want children at this time.

### House Passes Modified Drug Reimportation Bill

The House approved a $78 billion agricultural bill that included allowing the reimportation of prescription drugs from countries such as Canada and Mexico. This law repeals the 1988 act that banned drug imports because of safety concerns. All seven Minnesota House members supported the bill, but sponsors of the original bill were frustrated by stipulations added by House Republicans. These provisos included deleting an "English-only" label requirement; permitting drug companies to penalize foreign distributors who export drugs to the United States; and adding a "sunset" codicil enabling the law to expire five years after FDA approval.

# Rates, Trends & Data



### Fewer Uninsured Americans

For the first time in 13 years, the number of uninsured Americans has dropped, from 16.3 percent in 1998 to 15.5 percent or 42.6 million people, in 1999. Minnesota finished with the second lowest rate of uninsured citizens, 8 percent, with Rhode Island first at 6.9 percent. Officials credit the strong economy and the role of the private sector in boosting the number of insured, as companies offer new and expanded coverage to keep and court employees and their families. The largest gains were among poor children, aided by employer insurance and the Children's Health Insurance Program.

### State's Teen Smoking Rates Higher than National Average

Thirty-nine percent of Minnesota teenagers smoke, a rate that is about 4 percent higher than the national average, according to the

Minnesota Department of Public Health Youth Tobacco Survey. Thirteen percent of middle-school children admitted to smoking, which mirrors the national average. Though troubled by the teens' continued use of tobacco products, officials are encouraged because rates have remained steady, and many students are trying to quit.

### Violent Crime Rate Drops 10 Percent

According to a Justice Department crime victimization survey, violent crime in America dropped 10 percent from 1998 to 1999, the largest one-year drop since 1973, when statistics were first compiled. Experts attribute the reduction to better law enforcement and crime prevention, longer prison terms, and an aging population. Except in cases of rape and sexual assault, crime fell in every category surveyed. Urban areas improved most, though crime figures were still higher than in suburban or rural areas. From 1998 to 1999, serious crimes fell 8 percent in St. Paul and 10 percent in Minneapolis.

## Research & Innovations



### Physician Chronicles Violence on TV Commercials during Baseball Games

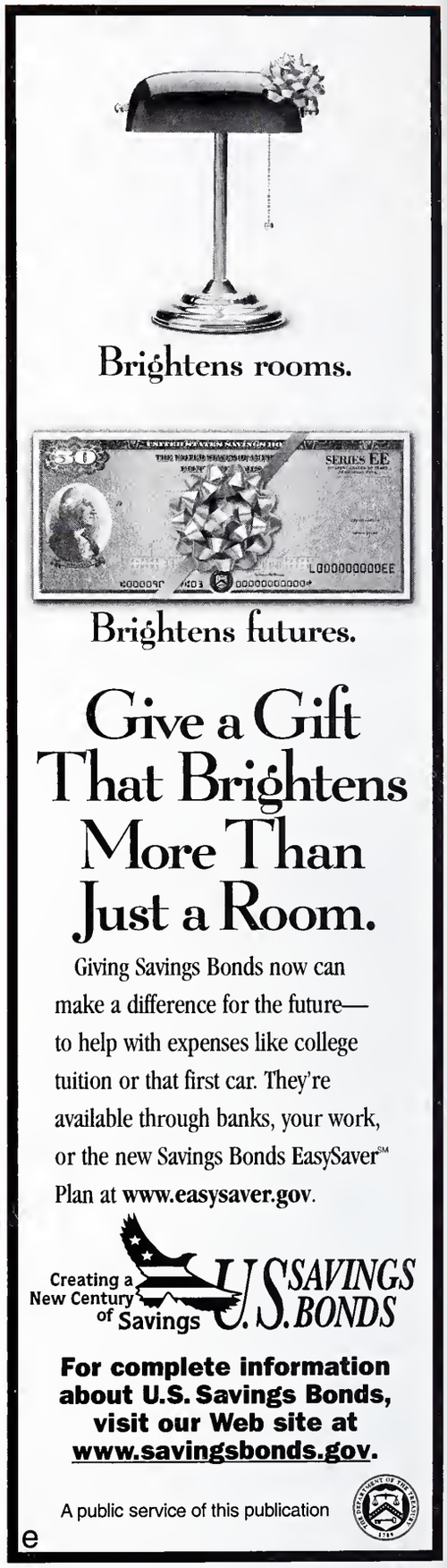
A study by Charles Anderson, M.D., of Hennepin County Medical Center published in *Pediatrics* electronic pages, an online extension of the journal, alerts parents to the presence of violence during television commercials. During the 15 games of the 1998 National League Championship Series, the American League Championship, and the World Series, 137 of 1,550 commericals contained violence as defined by the National Television Violence Study. Some of these violent interactions included the use of blood, guns, knives, explosions, and fires.

### Heart Stents Also Work for Women

Although heart stents initially present more problems for women, these devices are the most successful non-pharmacologic treatment for heart disease available today. These tiny, coiled devices prop open clogged arteries and may be used with or in lieu of balloon angioplasty. The findings were published, along with a Mayo Clinic review of 30 prior studies, in the October 11 *Journal of the American Medical Association.*

### Early Use of Birth Control Pill Linked to Breast Cancer in High-Risk Women

Researchers found that women with a family history of breast cancer who took the birth control pill before 1975 have a higher risk for breast cancer than those who do not have a familial tie. The study, published in the October 11 *Journal of the American Medical Association,* showed that women who have five or more relatives with cancer were 11 times more likely to develop breast cancer than women who did not use the pill. Investigators, led by Mayo Clinic Cancer Center epidemiologist Thomas Sellers, Ph.D., M.P.H., attribute these results to the higher estrogen doses in the first pills.




*Information compiled from the* St. Paul Pioneer Press, *the Minneapolis* Star Tribune, *the Associated Press, and news releases.*

## *Dermatology, General Surgery, Internal Medicine and Neurology*

There are immediate openings at Brainerd Medical Center for the following specialties: Dermatology, General Surgery, Internal Medicine and Neurology.

**Brainerd Medical Center, P.A.**

- 42-physician independent multi-specialty group
- Located in a primary service area of 50,000 people
- Almost 100% fee-for-service
- Excellent fringe benefits
- Competitive compensation
- Exceptional services available at 162-bed local hospital, St. Joseph's Medical Center

**Brainerd, Minnesota**

- Surrounded by the premier lakes of Minnesota
- Located in central Minnesota less than 2½ hours from the Twin Cities, Duluth and Fargo
- Large, very progressive school district
- Great community for families

**Call collect to Administrator:**
Curt Nielsen
(218) 828-7105 or (218) 829-4901
2024 South 6th Street
Brainerd, MN 56401
email: bmc@brainerd.net
internet: www.brainerdmedicalcenter.com

BMC

## Picture your future with ACMC... We think you'll fit right in!

ACMC is a 100+ multi-specialty group providing primary and secondary care in over 23 specialties in a network of 10 clinics in Southwestern and West Central Minnesota.

ACMC offers a secure practice among a well-established and respected physician-owned group with a very competitive financial and benefits package.

Positions now available for BE/BC physicians in:

Benson: *Family Practice*

Litchfield: *Family Practice*

Marshall: *Family Practice, Internal Medicine, OB/Gyn, Pediatrics*

Redwood Falls: *Family Practice, Med/Peds*

Willmar: *Family Practice, Internal Medicine, Oncology, Orthopaedic Surgery, Gastroenterology, Anesthesia, Urology, Psychiatry, Dermatology*

*Contact:* Kari Bredberg, Physician Recruitment
(320) 231-6366 • karib@acmc.com
Affiliated Community Medical Centers
101 Willmar Avenue SW • Willmar, MN 56201
www.acmc.com

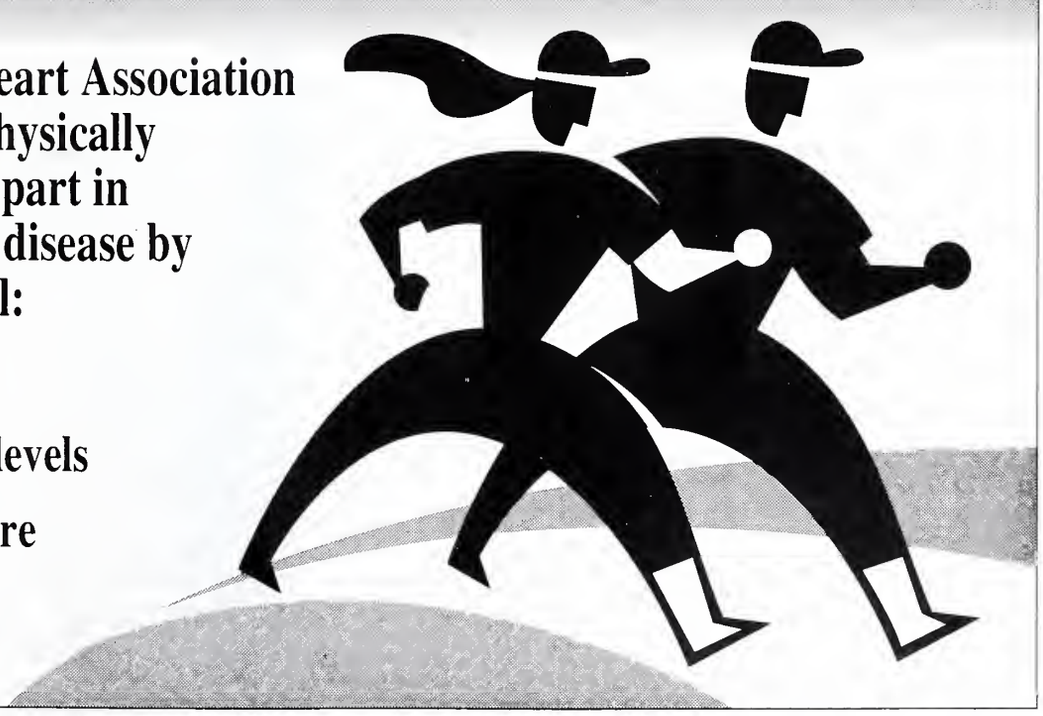
Affiliated COMMUNITY Medical Centers, P.A.

# Benefits of Physical Activity

American Heart Association℠
Fighting Heart Disease and Stroke

**The American Heart Association says that being physically active can play a part in preventing heart disease by helping to control:**

- **Weight**
- **Blood cholesterol levels**
- **High blood pressure**



©1997, American Heart Association

North Memorial Health Care®

*An Organization of Health Care Professionals*

*North Memorial is an independent, full-service facility located in the northwest Twin Cities with more than 700 physicians in more than 40 specialties. We are known as the trauma center in the region with other notable programs including the Hubert H. Humphrey Cancer Center, North Heart Center, North Rehabilitation Center, and the Women's and Children's Center. We also strongly promote physician practice opportunities within our associated clinics, including those that are independently owned, joint ventures and hospital owned. Which means you can choose from large or small and multi or single specialty practice options in metro, suburban or rural locations. North Memorial offers very competitive salaries and excellent fringe benefits. Sounds like the perfect job, doesn't it?*

*Positions now available for BE/BC physicians in:*

- Family Practice
- OB/GYN
- Internal Medicine
- Gastroenterology
- Hematology/Oncology
- Emergency Medicine
- Pediatrics
- Orthopaedic Surgery
- Urgent Care
- Dermatology

For consideration to be a part of our team please mail, fax, or e-mail cover letter and C.V. to:

Mark A. Peterson, Physician Recruiter
North Memorial Health Care
3300 Oakdale Avenue North
Robbinsdale, MN 55422
Phone: (800) 275-4750 or (763) 520-1336
Fax: (763) 520-5997
E-mail: mark.peterson@northmemorial.com

# STOP HERE

YOU NAME IT–WE CAN MAKE IT!

- ◆ Bioidentical Natural Hormone Replacement Therapy
- ◆ Alternative routes of administration
- ◆ Discontinued or hard to find medications
- ◆ Custom dose and dosage form
- ◆ Solutions for unique medical problems
- ◆ Achilles Express Bone Density Testing

We are your "Problem Solving" Specialist!

***Custom-Rx Compounding Pharmacy***

Verne Betlach R.Ph. FIACP
Richfield Professional Building
6519 Nicollet Ave. S, Ste. 201
612-866-2211 fx 612-866-9217

Park Nicollet

**Family Practice**
**Internal Medicine**

Park Nicollet Clinic is seeking BE/BC Family Practice Physicians and General Internists to join our multi-specialty group in western and southern suburban Minneapolis.

Award-winning Park Nicollet Clinic is one of the largest multi-specialty clinics in the country with nearly 500 physicians and 270 clinical professionals practicing in 45 medical subspecialties. The clinic is nationally and locally recognized for its care improvement initiatives.

Park Nicollet Clinic offers a variety of practice settings ranging from small primary care settings to specialty care in larger sites. Wherever a physician practices, they have the collaboration of their colleagues in providing the finest care.

For immediate consideration, please fax, mail, or e-mail your CV and cover letter to:

Missy Fisher, Clinician Recruitment
Park Nicollet Health Services
3800 Park Nicollet Boulevard - 7N
Minneapolis, MN 55416
(952)993-6025 or (888)437-5004, (952)993-2819 fax
***fishem@parknicollet.com***

# Successful Losers

## *The Habits of Individuals Who Have Maintained Long-term Weight Loss*

Mary Lou Klem, Ph.D.

ABSTRACT

**One way to learn more about factors that are associated with maintaining weight loss is to study the habits of individuals who have successfully lost weight and kept it off. Members of the National Weight Control Registry, an observational study of so-called successful losers, report consuming healthy, low-fat diets and engaging in high levels of physical activity.**

**Obesity and overweight are common health problems, and their prevalence has increased dramatically in the past 30 years. Currently, half of all U.S. adults are overweight or obese (defined as a body mass index of 25 or more).[1] Excess weight is associated with an increased risk for numerous health problems, including dyslipidemia, hypertension, cardiovascular disease, type 2 diabetes, and some cancers, and it has been estimated that up to 325,000 deaths per year in the United States are attributable to obesity.[2,3]**

State-of-the-art behavioral weight-loss programs have proven effective in initially helping overweight individuals to lose weight. The participants in such programs lose, on average, about 1 lb a week, with maximum weight loss usually occurring at about 6 months of treatment. After this point, unfortunately, weight regain typically begins.[4]

One method for improving the outcome of obesity treatment programs may be to study the habits of individuals who have maintained weight loss. The National Weight Control Registry (NWCR), jointly created by researchers at the University of Pittsburgh School of Medicine and the University of Colorado Health Sciences Center, is the largest study of individuals who have been successful at long-term maintenance of weight loss. This article briefly describes the design of the registry and the project's findings to date.

### *The National Weight Control Registry*

The National Weight Control Registry is a longitudinal observational study of individuals who have been highly successful at weight-loss maintenance.[5] To enroll, an individual must have lost at least 30 lb and have maintained the loss for 1 year or longer. Participants have been recruited through media coverage of the NWCR, mailings sent by commercial weight-loss programs to their members, and articles placed in health newsletters and popular magazines. Individuals who join the registry are initially sent a packet of questionnaires to complete and are also asked to agree to complete similar packets once a year for the subsequent 4 years.

Entry into the registry is based on self-reported information about height and weight. Registry members are asked to document their weight losses by providing before-and-after photographs or the names of individuals (such as doctors or weight-loss counselors) who can verify their weight losses. Forty-two percent of the registry members have provided names of documenters; 37% have provided before-and-after photos; 4% have provided both; and 17% have provided no documentation. The correlation between the participants' reported highest weights ever and their documenters' reports of these weights is 0.98, while the average discrepancy between the 2 reported weights is 5.4 lb. Similarly, the correlation between the participants' reported current weight and the documenters' report of the same is 0.97, while the average discrepancy is 1.5 lb. Taken together, these findings suggest that the registry's members are accurate in their weight reports.[6]

### *Characteristics of Registry Members*

Currently, 2,957 individuals are enrolled in the registry. Seventy-nine percent of registry members are women; 95% are Caucasian; 54% have at least an undergraduate college degree; and 64% are married.

Members report an average total weight loss of 71 lb and have maintained the required 30-lb weight loss for an average of 6 years. At their highest adult weights, the registry members were significantly obese (average BMI=36; average weight=227 lb). As a result of their successful weight loss, however, the members have reduced to a normal-weight status (average BMI=24; average weight=155 lb).

Ninety-one percent of the registry's members report previous unsuc-

cessful attempts to lose weight. Combining 2 pieces of information about these previous attempts (number of attempts multiplied by amount of weight lost during each attempt) indicates that NWCR participants have an extensive history of weight cycling. On average, members have previously lost (and subsequently regained) 269 lb. Most registry members report childhood-onset obesity; 71% first became overweight before age 18. A significant proportion of members also reports a family history of weight problems; 73% reported that one or both biologic parents were overweight. The weight losses achieved by the registry's members become even more impressive when considered in light of these findings, which suggest a strong genetic predisposition to overweight.

## *Methods of Weight Loss*

Approximately 55% of NWCR members reported using a formal weight-loss program or professional assistance (e.g., Weight Watchers, sessions with a registered dietitian) to initially lose weight; 45% indicated they had lost weight on their own, with women being more likely than men to report the use of a formal program or assistance (60% vs. 37%). Overwhelmingly, the participants indicated that they changed both eating and exercise habits to lose weight (89%; 10% changed only diet; 1% changed only exercise levels). At least 25% of all participants reported using dietary strategies such as limiting intake of certain types of foods, controlling portion sizes, counting calories, and limiting fat intake. Fewer individuals (20%) used liquid formulas to lose weight, and only a small number of participants (5%) used the extreme strategy of limiting intake to only 1 or 2 types of food. Of the registry members who used exercise to lose weight, most (92%) exercised at home, and 30% to 40% exercised with friends or a group of people. Walking was the most popular activity, engaged in by 87% of the sample. Aerobic dance and weightlifting were also popular (reported by 36%–38% of the sample), with women being more likely than men to have attended aerobics classes.

## *Weight-Maintenance Strategies*

Just as they did to lose the weight initially, the registry's members watch food intake as part of their weight-maintenance regimen. The most popular dietary strategies continue to be limiting intake of certain types of food, limiting portion sizes, counting calories, and reducing fat intake. The use of these strategies has resulted in what appears to be a significantly low intake of fat: Members report obtaining 24% of their daily energy from fat, while dietary fat consumption for an "average" American is likely to be closer to 35% to 40%. While NWCR members are clearly restricting their food intake, they do not appear to be consuming a diet that is nutritionally deficient. Both men and women in the NWCR meet or exceed recommended daily allowances for calcium, vitamin C, vitamin A, and vitamin E. Women in the registry do not meet the recommended daily allowance for protein, but their iron intake is comparable to that of a national sample of U.S. women. Taken as a whole, these findings suggest that the registry's members are consuming a healthy diet that includes fruits and vegetables, low-fat, calcium-rich foods, and limited amounts of meat, fish, and other iron sources.[7]

In addition to watching their food intake, NWCR members are also physically active. Only 9% report having no regular exercise routine; 28% walk regularly; 49% walk and regularly engage in some other activity; and 14% regularly engage in an exercise other than walking. This activity translates into very high levels of self-reported energy expenditure: Registry members report expending 2,826 kcal per week, with men reporting higher expenditures than women (3,488 kcal vs. 2,668 kcal).

It has been shown that some individuals underestimate food intake and overestimate levels of activity, so it is possible that the NWCR members' reports contain some degree of error.[8] Future studies that utilize objective measures of energy intake and expenditure may be helpful in determining the accuracy of these reports. However, registry members report eating less fat and exercising more than those in the post-treatment phases of behavioral weight-loss studies, a sample that is just as prone to subject and measurement error.[9,10] This suggests that while the NWCR members' reports may contain errors, the participants are still likely to have made significant changes in their eating and exercise habits.

## *Consequences of Successful Weight-Loss Maintenance*

The lack of long-term success observed in many weight-loss research studies has led some researchers to speculate that weight loss may lead to the development of a metabolic efficiency that makes weight regain more likely. That, in turn, may produce behavioral and psychological effects such as depression and preoccupation with food.

The findings from the NWCR, however, suggest that an increased metabolic efficiency (and accompanying psychological distress) are not necessarily consequences of successful weight loss and maintenance.[11,12] Using indirect calorimetry, researchers measured resting metabolic rate and fasting respiratory quotient in a subset of the registry members, and the results were compared with measures that were gathered from a group of control subjects (gender- and weight-matched individuals who had not lost weight). There was no significant difference in resting metabolic rate between the 2 groups, and the NWCR group had only a slightly higher respiratory quotient than the control group (a difference that could also be explained by the low-fat diet typically consumed by registry members). Thus, there was little evidence of increased metabolic efficiency in registry members.

To assess the psychological impact of successful weight-loss maintenance, registry members' results on standardized measures of psychological functioning were compared with the results from both clinical (e.g., eating-disordered patients, depressed patients) and community samples. The NWCR members' levels of depressive

symptoms and global distress were lower than those seen in the psychiatric samples and comparable to those of the community-based samples. The rates of disordered eating (bingeing, self-induced vomiting) were lower than those observed in samples of eating-disordered patients and similar to the rates of community samples. Thus, there was no evidence that successful weight-loss maintenance was associated with any psychological distress.[12]

## *Predictors of Weight Regain*

Upon entering the registry, members agree to be assessed annually for 5 years. This prospective design has allowed us to begin to determine if the subjects' characteristics measured at entry into the NWCR will predict weight gain and continued weight maintenance over subsequent years. As a first step in studying this issue, we identified 714 registry members who had completed both baseline and 1-year follow-up assessments.[6] At the 1-year follow-up, 59% of this subset had continued to maintain their weight (within ±5 lb of baseline weight); 35% had gained more than 5 lb in the past year (average gain=15.5 lb); and 6% had lost more than 5 lb in the past year (since we were primarily interested in predictors of weight gain vs. continued maintenance, these latter subjects were not included in any further analyses). The risk of weight gain over the 1-year period was higher in individuals who had initially lost larger amounts of weight (30% or more of maximum adult weight); who had maintained their weight losses for shorter periods of time (less than 2 years); who were attempting to lose weight at time of entry into the registry (vs. trying to maintain weight); and who reported greater difficulty controlling their eating behavior. The weight regainers, as compared with maintainers, also showed greater changes in weight-related behaviors over the year of follow-up. The regainers reported significant increases in fat intake, while fat intake for the maintainers remained constant. Both groups showed some decline in physical activity levels over the year; however, the decline was significantly greater in regainers than in maintainers. These results suggest that the individuals at risk for weight regain may be identifiable by their weight history (magnitude of initial weight loss, duration of maintenance) and their level of control over their eating behaviors. The development of interventions that target one or more of these factors (e.g., setting reasonable initial weight-loss goals; treatment for binge eating) may result in the improved maintenance of weight loss.

## *Summary*

Maintaining weight loss remains an elusive goal for many Americans. Nonetheless, the findings from the NWCR offer some hope that successful weight-loss maintenance is possible. Individuals who have lost weight and kept it off are doing it the old-fashioned way: by eating healthy, low-fat diets and staying physically active. When working with overweight patients, doctors should encourage them to choose reasonable weight-loss goals (no more than 25% of body weight). They should also counsel them to opt for weight-control strategies they will be comfortable with for the rest of their lives (including some form of physical activity) and to seek professional help if they are struggling with binge eating or other unhealthy eating behaviors. MM

*Mary Lou Klem is assistant professor, Department of Psychiatry, University of Pittsburgh School of Medicine, and director of the National Weight Control Registry.*

### *The National Weight Control Registry*

Know any "successful losers"? If you would like to tell your patients about the National Weight Control Registry, call our toll-free phone number (800/606-NWCR) and request the registry information packet for health care professionals. There is no cost to enroll in the registry and participants receive no compensation. All names are kept confidential.

### *Successful Weight Maintenance Strategies*

**Eating**

Decrease fat intake.

Increase fruit and vegetable intake.

**Activity**

Participate in regular physical activity.

Choose activities you can enjoy and stay with for the long haul.

REFERENCES

1. Flegal MD, Carroll RJ, Kuczmarski RJ, et al. Overweight and obesity in the United States: prevalence and trends. Int J Obes Relat Metab Disord 1998;22:39-47.
2. Kannel WB, D'Agostino RB, Cobb JL. Effect of weight on cardiovascular disease. Am J Clin Nutr 1996;63:419S-22S.
3. Allison DB, Fontaine KR, Manson JE, et al. Annual deaths attributable to obesity in the United States. JAMA 1999;282:1530-8.
4. Jeffery RW, Drewnowski A, Epstein LH, et al. Long-term maintenance of weight loss: current status. Health Psychol 2000;19:5-16.
5. Klem ML, Wing RR, McGuire MT, et al. A descriptive study of individuals successful at long-term maintenance of substantial weight loss. Am J Clin Nutr 1997;66:239-46.
6. McGuire MT, Wing RR, Klem ML, et al. What predicts weight regain in a group of successful weight losers? J Consult Clin Psych 1999;67:177-85.
7. Shick SM, Wing RR, Klem ML, et al. Persons successful at long-term weight loss and maintenance continue to consume a low-energy, low-fat diet. J Am Diet Assoc 1998; 98:408-13.
8. Lichtman SW, Pisarska K, Berman ER, et al. Discrepancy between self-reported and actual caloric intake and exercise in obese subjects. N Engl J Med 1992;327:1893-8.
9. Jeffery RW, Wing RR, Thorson C, et al. Strengthening behavioral interventions for weight loss: a randomized trial of food provision and monetary incentives. J Consult Clin Psych 1993;61:1038-45.
10. Pascale RW, Wing RR, Butler BA et al. Effects of a behavioral weight control program stressing calorie restriction versus calorie plus fat restriction in obese individuals with NIDDM or a family history of diabetes. Diabetes Care 1995;18:1241-8.
11. Wyatt HR, Grunwald GK, Seagle HM, et al. Resting metabolic expenditure in reduced-obese subjects in the National Weight Control Registry. Am J Clin Nutr 1999;69:1189-93.
12. Klem ML, Wing RR, McGuire MT, et al. Psychological symptoms in individuals successful at long-term maintenance of weight loss. Health Psych 1998;17:336-45.

# Sponsors Club

## Platinum Sponsors

Pharmacia & Upjohn

Lilly

Novo Nordisk

NOVARTIS

TAP PHARMACEUTICAL PRODUCTS, INC. and ABBOTT LABORATORIES

## Sustaining Sponsors

IKON Office Solutions

MMIC

Pfizer

## Patron Sponsors

GLOBAL HOLIDAYS

MMIC • Benefits

RELIASTAR

CURTIS 1000

3M Health Care

AlliedInterstate

Schering-Plough External Affairs Inc.

## Contributing Sponsors

LOCKRIDGE GRINDAL NAUEN P.L.L.P.
Attorneys at Law

CRYOGENIC LABORATORIES INCORPORATED

St. Croix Press

LOMMEN NELSON LAW FIRM
Lommen, Nelson, Cole & Stageberg, P.A.

IBM MID AMERICA EMPLOYEES FEDERAL CREDIT UNION

U.S. Army 3rd Recruiting Brigade
Minneapolis Health Care Recruiting Team

BUSHARD PRINTING

*Thank You!*

# Diagnosis and Management of Asbestosis

*Physicians should be prepared to properly diagnose and competently care for patients with asbestos-related illness.*

Ola Kuku, M.D., M.P.H., and David L. Parker, M.D., M.P.H.

***Editor's note:*** *Although uncommon, asbestos-related disease is a serious health problem for those workers and their families who have been exposed to the fiber. Recent public health investigations suggest that a cohort of vermiculite workers from Minnesota may have suffered significant exposure in the 1970s and 1980s. The clinical relevance for the primary care physician is the need to make an accurate diagnosis based on history, physical, and imaging or biopsy studies. The most valuable therapy the primary care physician provides may be such preventive actions as facilitating smoking cessation and providing pneumococcal vaccines and yearly influenza immunizations. Just as important is reporting the case and helping the patient to contact resources for workers' compensation support. Consulting with experts in occupational medicine and pulmonary medicine—and when necessary, surgeons and oncologists—may improve specialty care.*

—Barbara Yawn, M.D., M.Sc.
Series Editor

## Overview

Asbestos is a generic term for several different mineral silicates, including chrysolite, amosite, anthophyllite, and crocidolite. The desirable properties of asbestos led to its use in thousands of products before its hazards were fully recognized. Asbestosis was first defined as a clinical entity in the late 1920s. The stringent control of asbestos in the workplace has substantially reduced the prevalence of asbestos exposure. However, because of the long latency of asbestos-related diseases, new cases will continue to be identified among individuals with past high occupational exposures, and less commonly, among their family members. Exposures have been documented in the mining, milling, and the manufacture of asbestos products, the construction trades like pipefitting and boiler-making, and the manufacture of safety garments, filler for plastic material, and friction materials like brake and clutch linings. Cases of asbestos-related diseases have also been found in painters, electricians, and other workers with moderate exposures to asbestos.

During the past year, federal and state agencies have launched investigations of asbestos exposures from the mining, processing, and use of vermiculite from a Montana mine that was contaminated with tremolite asbestos. Several of the processing plants using the tremolite-containing vermiculite were located in the Twin Cities and were operating as recently as 1989. This has led to widespread health concerns among former vermiculite workers and residents from communities surrounding processing plants.

## Health Effects

The major health effects from exposure to asbestos can be divided into non-neoplastic diseases and asbestos-related cancers. Diffuse interstitial fibrosis (asbestosis) is a restrictive lung disease that becomes manifest 10 to 20 years after the onset of exposure.[1]

Asbestosis is defined as bilateral diffuse interstitial fibrosis of the lungs. Severity is usually directly related to the intensity and duration of exposure to asbestos fibers. It is indistinguishable histologically from other forms of diffuse lung fibrosis such as idiopathic pulmonary fibrosis. The only feature unique to asbestosis is the presence of asbestos bodies in the lung tissue. The primary route of exposure is inhalation of asbestos fibers into the upper airways and the lungs. Although researchers have tried to link ingestion of asbestos fibers to gastrointestinal cancers, epidemiologic studies have been unable to consistently link asbestosis to these malignancies.[2]

Although many cases are asymptomatic, early clinical manifestations of asbestosis include dyspnea on exertion and dry cough. Later, these may be accompanied by fatigue, anorexia, and weight loss. Pleuritic chest pain also may occur. Physical examination reveals end-inspiratory rales in the basilar areas, tachypnea at rest, and in severe cases, clubbing of the fingers and toes.

Chest x-rays show small, irregular, or linear opacities in the middle and lower lung fields. In some cases, a ground glass appearance is seen.[3] The diagnosis of asbestosis may be aided by the presence of pleural

plaques and/or diffuse pleural thickening. Pulmonary function tests show decreased total lung capacity, vital capacity, and residual volume. The alveolar-arterial oxygen gradient during exercise is elevated, and exercise tolerance is reduced. Correlation may be poor among radiographic appearance, degree of dyspnea, and pulmonary function studies. In severe cases, cor pulmonale develops with pulmonary hypertension and right-sided heart failure.[4]

Pleural thickening or calcification along the parietal pleura, particularly along the lower lung fields, the diaphragm, and the cardiac border, may indicate past exposure to asbestos and can impair lung function. These effects usually appear 20 years or more after the onset of exposure. However, early studies of workers exposed to high levels of asbestos showed rapid progression of the disease.[5]

Benign pleural effusion may sometimes be the first manifestation of asbestos-related disease. Diagnosis is by exclusion of other causes. The fluid is usually sterile but may be serous or contain bloodstained exudates and may occur bilaterally. Spontaneous resorption generally occurs within weeks.[6]

Lung cancer is the most frequent malignancy associated with asbestos exposure, with a minimum latency of 15 to 20 years between the first exposure and the development of the cancer. The dominant malignancy is adenocarcinoma, but all cell types of bronchogenic cancers are seen. Recent studies found no difference between asbestos- and smoking-related cancers. Cigarette smoking substantially increases the risk of asbestos-related lung cancer among asbestos-exposed people.

Both pleural and peritoneal mesotheliomas are also associated with asbestos exposure.[7] Asbestos exposures of 1 to 2 years or less occurring some 25 years in the past have been associated with the development of mesothelioma. The risk for mesothelioma starts at least 25 to 35 years after initial asbestos exposure. Approximately 50% of mesotheliomas metastasize. The cancer generally is locally invasive and extension results in death. Most patients present with chest pain, dyspnea, and pleural effusion, with no shift of mediastinal structures because of chest wall restriction. An open biopsy is often necessary for diagnosis to differentiate from peripherally spreading pulmonary adenocarcinoma or a metastasis from an extrathoracic site. In contrast to lung cancers, mesotheliomas do not appear to be associated with smoking.

## *Diagnosis*

The case definition of asbestosis is clinical because physicians usually diagnose asbestosis in the absence of a histological assessment of lung tissues. The clinical, physiologic, and radiologic findings of asbestosis are not specific and can be seen in diffuse interstitial fibrosis of other causes, except that patients with asbestosis have a history of occupational asbestos exposure.

The assessment of an individual for an asbestos-related disease should include an extensive current and past medical history, questions relating to respiratory symptoms, family medical history, and residential and detailed lifetime occupational history. The patient's smoking history and possible exposure to other chemical and physical hazards on the job are also important, as is information about the onset and progression of dyspnea and cough not associated with respiratory infections. Chest pain that is provoked or worsened by respiratory motions occurs in some patients with pleural scarring. The medical history should include questions about chest trauma, pleuritis, bronchitis, collagen-vascular or rheumatological diseases such as systemic lupus erythematosus, or systemic sclerosis. The occupational history should include job title, tasks, and dates of employment. The frequency and duration of tasks that may have exposed the patient to asbestos or other dusts should also be obtained.

The physical examination, although focused on respiratory and cardiovascular systems, should be comprehensive. Physicians should check for presence of tachypnea or respiratory distress and should palpate the neck and axilla for nodes. The chest examination should include inspection of chest contour and auscultation for end inspiratory basilar rales, which are typical for asbestosis.[8] The gastrointestinal examination should look for masses and intraabdominal fluid.

A posterior-anterior chest radiograph may be used to detect a number of asbestos-related lung diseases. The chest radiograph may show irregular or linear opacities, usually first found in the lower lung fields. When the disease is extensive, opacities may be seen in the middle and upper lung fields. An indistinct heart border or a ground glass appearance may be seen in some cases. Thickening or calcification along the lower lung fields, the diaphragm, and the cardiac border characterizes pleural plaques. Lateral views can help to detect malignant lesions lying behind the heart and mediastinum. High-resolution computed tomography enhances diagnostic accuracy and is useful in detecting lesions not readily seen with x-rays. This method also has the advantage of reduced radiation exposure and can focus on a particular area for clarification. However, because of cost, use of scanning for routine screening is not recommended. These tests should be used at the discretion of the treating physician.

Pulmonary function testing shows a restrictive pattern reflecting stiff, noncompliant lungs. There is a reduction in total lung capacity, vital capacity, and residual volume. The FEV1/FVC ratio is normal or increased, and there is a resting hypoxemia with normal carbon dioxide tension and normal blood pH. During exercise, the alveolar-arterial oxygen gradient is elevated, and exercise tolerance is reduced. The carbon monoxide diffusing capacity is usually reduced by 30% to 50%.[9]

## *Management*

### Nonmalignant pleural diseases

There is no effective treatment available for parenchymal asbestosis. Corticosteroids and colchicines have been used, but have not proven beneficial for asbestosis. For

very severe cases, the treatment is symptomatic, and the last option is lung transplantation.[10] Patients should be advised to quit smoking and supported in their efforts to do so because of the strong synergism among asbestos, cigarette smoking, and lung cancer. In addition, physicians should counsel patients on the importance of routine immunizations for pneumococcal pneumonia and influenza and urge them to seek early medical care should they develop respiratory problems.

Asbestos-related diffuse pleural thickening may cause respiratory impairment caused by entrapment of the lungs in extreme cases. Pleurectomy may be necessary for lung expansion.[11] Except for periodic chest radiographs and pulmonary function testing to monitor progression, there is no required treatment. Benign pleural effusion may require thoracentesis and pleural biopsy for accurate diagnosis.

### Malignant asbestos-related disease

Treatment approaches to asbestos-related lung cancer are similar to methods used for the treatment of lung cancer from other etiologies.[12] The prognosis for lung cancer is poor, and the 5-year survival rate is about 10%. Malignant mesothelioma has a bleak prognosis. The average survival rate after diagnosis is about 1 year. Surgery, chemotherapy, and radiation have increased survival in some patients.

The patient with an asbestos-related disease may be eligible for workers' compensation in the form of medical care and/or monetary payment. Physicians must inform the patient promptly of the diagnosis and, if there is suspicion of ongoing exposure from a job, notify the appropriate federal or state health authorities.

## *Summary*

Asbestos-related illness usually arises at least 10 to 20 years after initial exposure. In many instances, patients may be unaware of the source of exposure. Although community-based exposures are unusual, recent events indicate that both communities and workers may have had significant exposure to asbestos contained within vermiculite. Physicians should obtain a medical history as outlined above when examining workers or community members who believe they have been significantly exposed to vermiculite. In addition, pulmonary function testing and chest radiographs should be obtained. If these are normal and there is no ongoing exposure, it is likely that no further evaluation is required. Physicians should have a radiologist familiar with occupational lung diseases read films. Patients may ask that a "B" reader, a physician who is certified by the National Institute for Occupational Safety and Health to read x-rays for changes related to the pneumoconioses, review their films. Facilitating smoking cessation and providing routine immunizations are important secondary preventive measures. Workers exposed to asbestos should receive ongoing screening as specified by the Occupational Safety and Health Administration.

Over the last several decades, numerous epidemiologic studies have evaluated the efficacy of lung cancer screening. Period chest radiographs and sputum cytology have not been shown to increase lung cancer survival rates. Recent studies have demonstrated the potential benefit of scanning in the early detection of lung cancer. Although encouraging, these studies do not yet support the use of imaging for the routine screening of high-risk populations as required by the Occupational Safety and Health Administration. MM

*David Parker is co-director of the Minnesota Department of Health, Center for Occupational Health and Safety.*

*Ola Kuku is an occupational medicine resident at Regions Hospital.*

### REFERENCES

1. Seidman H, Hammond EC. Short-term asbestos work exposure and long-term observation. Health hazards of asbestos exposure. Proceedings of New York Academy of Sciences 1979;61-89.
2. Kanarek MS. Epidemiological studies on ingested mineral fibers: gastric and other cancers. IARC Sci Publ 1989;90:428-37.
3. Selikoff IJ. Occupational respiratory diseases Maxcy-Rosenau public health and preventive medicine, 11th ed. New York: Appleton Century Crofts, 1980;568-647.
4. Lemen RA. Epidemiology of asbestos-related disease. Environ Health Perspect 1980;34:1-11.
5. Mossman BT, Churg A. Mechanisms in the pathogenesis of asbestosis and silicosis. Am J Respir Care Med 1998;157:1666-80.
6. Gaensler EA, Kaplan AI. Asbestos pleural effusion. Ann Intern Med 1971;74:178-91.
7. Suzuki Y, Churg J. Structure and development of the asbestos body. Am J Pathol 1969;55:79-107.
8. Murphy RL. Crackles in the early detection of asbestosis. Am Rev Respir Dis 1984;129;375-9.
9. Gardner RM. Standardization of spirometry. Am Rev Respir Dis 1987;136:1285-98.
10. Wagner TO, Haaverich A. Lung and heart-lung transplantation: indications, complications and prognosis. Pneumologie 1994;48(2):110-20.
11. Miller A, Terstein AS. Ventilatory failure due to asbestos pleurisy. Am J Med 1983;75:911-19.
12. Lordi GM, Reichman LB. Pulmonary complications of asbestos exposure. Am Fam Physician 1993;48(8):1471-7.

MULTICARE ASSOCIATES OF THE TWIN CITIES

Multicare Associates of the Twin Cities, a multispecialty/multi-location clinic, located in the northern suburbs of Minneapolis/St. Paul, has available positions for BC/BE physicians in the following departments:

## Family Practice
## Internal Medicine
## OB/GYN

Excellent salary/benefits package includes paid insurance, flexible benefits plan, 401K, profit sharing, continuing medical education. Shareholder status potential after one year.

Contact Jeannine Schlottman
Administrator
7675 Madison St. NE
Fridley, MN 55432
763/785-3338
www.multicare-assoc.com

---

Clear blue skies, fresh air, wide-open spaces and clean lakes await you.



MeritCare Medical Group is seeking talented, energetic physicians to join thriving, diverse practices.

MeritCare Health System is the premiere health system between Minneapolis and Seattle. MeritCare Medical Group is a 350-physician, multispecialty group with a strong primary care base and MeritCare Hospital is a 380-bed tertiary/trauma facility. Fargo-Moorhead, recently named an "All American City, is a tri-college community of 160,000 with excellent public and parochial schools and a park department that provides year round activities for all age groups.

**Adult Psychiatry**
**Anesthesiology**
**Cardiology & Electrophysiology**
**Child/Adolescent Psychologist** (Detroit Lakes, MN)
**Child/Adolescent Psychiatry**
**Dermatology**
**Eating Disorders Clinician** (PhD, PsyD or Masters prepared)
**ENT**
**Family Practice** (Fargo, ND; E. Grand Forks, MN)
**General Surgery** (Valley City, ND)
**Hematology/Oncology**
**Internal Medicine** (Hospitalist)
**Interventional Radiology**
**Neonatology**
**Nephrology**
**Neuropsychology**
**Neurosurgery**
**Obstetrics/Gynecology**
**Optometry** (Mayville, ND)
**Orthopaedics** (Fargo & Jamestown, ND)
**Pediatrics**
**Radiation/Oncology**
**Reproductive Endocrinology**
**Rheumatology**
**Walk - in Services** (Fargo, ND)

MeritCare Medical Group

EOE/AA Employer

**Contact Jill Gilleshammer,**
**Human Resources, Physician Recruiting**
**737 Broadway, Fargo, ND 58123**
**or call 1-800-437-4010, ext. 2338 or fax vitae to**
**701-234-2316. Visit our web site at www.meritcare.com**
Not a J1 Visa Waiver. This is not an HPSA site.

---

## Physician Employment Opportunities Available at WINONA CLINIC, LTD.

### Family Practice

### General Internal Medicine

** concentrated area of study in Cardiology or Gastroenterology is a plus, but NOT required*

### Orthopedic Surgery

### Pediatrics

Our staff of 37+ healthcare providers is looking forward to welcoming you, as you begin your practice at this thriving, independent, physician-owned, multi-specialty clinic, located in a family-oriented community situated along the Mississippi River in the beautiful bluff country of southeastern MN.

*For additional information, contact:*
**Human Resources Director**
**Winona Clinic, Ltd.**
**420 East Sarnia Street**
**Winona, MN 55887**
**Phone: 507-457-7686**
**Fax: 507-457-7672**

---

## Instructor (Annually Renewable) orAssistant Professor of Medicine (Clinical Track or Annually Renewable)
## Division of General Internal Medicine
## University of Minnesota Medical School

The Department of Medicine is seeking general internists to serve as clinician/educators in Division of General Internal Medicine at the University of Minnesota at 50-100% effort. Clinical activity will be in the areas of ambulatory clinical practice, medical consultation, and in-patient attending. Educational responsibilities include teaching of medical students and housestaff, and include, but are not limited to clinical preceptorship, teaching conferences, and curriculum development. Applicants for this position will demonstrate excellence in patient care, and creativity and enthusiasm for medical education. Scholarship in clinical and educational activities are strongly encouraged and will be supported. Requirements include an MD degree and board eligibility or board certification in Internal Medicine; advanced training in General Internal Medicine or practice experience are highly desirable. A competitive salary and an intellectually exciting environment are offered. Send CV and 3 references to:

Robert Howe, MD, Interim Director, General Internal Medicine, University of Minnesota, MMC 741, 420 Delaware St. S.E., Minneapolis, MN 55455 Phone: 612/624-8984

***The University of Minnesota is an equal opportunity educator and employer***

# Complaints to the Minnesota Board of Medical Practice in FY 2000

*The Minnesota Board of Medical Practice has seen a reassuring decrease in complaints in recent years.*

By Kent G. Harbison, J.D., and Cynthia Jokela Moyer, J.D.

For most physicians and other professionals regulated by the Minnesota Board of Medical Practice, the only reminder that the board even exists occurs when they renew their licenses or comply with continuing medical education requirements. For others, however, the board is a much more active and potentially ominous part of their lives. They are the physicians and other health care professionals who receive notices that someone has filed a complaint against them with the board. The good news is that the total number of complaints filed with the board in fiscal year (FY) 2000 (July 1, 1999, to June 30, 2000) decreased for the fifth consecutive year. The bad news is that the number of complaints for FY 2000 was still large, 786. (Because of widely varying complaint categories among states, it is difficult to make a reliable comparison between the number of complaints in Minnesota and those in other states with comparable numbers of licensed physicians. According to the most recent data from the national Federation of State Medical Boards, however, the number of complaints filed in Minnesota seems to be slightly above the average for states with a similar number of licensed physicians.)

Each year the board is required to submit an annual report to the Minnesota Legislature and the governor summarizing an array of information about complaints filed with and investigated by the board. The report for FY 2000 reflects interesting and perhaps surprising data about the investigative and complaint-processing functions of the board.

Complaint reporting requirements were first implemented in 1980, and during the first several years of reporting requirements, the number of complaints against physicians and other persons regulated by the board was relatively small but increased steadily each year. The high mark was FY 1993, when the board received 1,254 complaints. Each year since 1993 (with the exception of FY 1995), the number of complaints has declined.

In FY 2000, 15,592 physicians had active Minnesota medical licenses. The total number of health care practitioners regulated by the board for FY 2000 was 17,900. The other regulated professionals include physical therapists, physician assistants, respiratory care practitioners, athletic trainers, and acupuncture practitioners. (Physical therapists are now licensed by the Board of Physical Therapy although the Board of Medical Practice has been administering that board.) Of the 786 complaints filed with the board in FY 2000, one can assume that the overwhelming majority were against physicians, since physicians make up about 87 percent of the professionals regulated by the board. This means that approximately 5 percent of the Minnesota physicians with active licenses in 2000 were the subjects of complaints. (The board's report does not indicate the percent of complaints that were filed against physicians as opposed to other health care professionals licensed by the board, but it is likely that only a comparatively small number of the complaints were filed against nonphysicians.)

Whenever the board receives a complaint, it first determines whether the subject matter falls within its jurisdiction. After the board eliminates those complaints outside its jurisdiction, it processes and investigates the complaints using its own staff and investigators and attorneys from the attorney general's office. The 786 complaints received in FY 2000 alleged 1,221 different types of violations. Those were in addition to the pending complaints that had been left over from the previous year or years. For example, as of June 30, 2000, the board still had 514 complaints yet to be processed and/or investigated from past years. In fact, at any given time in the past few years, the board has had a minimum of 400 pending complaints.

Although these are daunting numbers, some of the complaints do not require extensive analysis or investigation. A few cases are dismissed with little or no in-depth investigation, either because they cannot be substantiated or because they have already been resolved without the need for any board action. In such cases, the board typically sends a letter to the physician indicating that

the complaint has been reviewed, analyzed, and dismissed without further action. On some rare occasions, complaints are dismissed without the physicians even knowing that a complaint had ever been filed.

If the board determines preliminarily that a complaint justifies some type of response from the physician or further investigation (including personal interviews and document reviews), it will notify the physician of the allegations and request a response. Sometimes the board requests the physician's side of the story in the form of a written response; other times, an investigator will conduct a personal interview with the physician. The board will also advise physicians that they have a right to legal counsel in preparing their response or participating in the investigative interview.

After the investigative information is collected, the board usually decides upon one of three main options: It may dismiss the complaint and close the file; it may require the physician to attend an informal conference with one of its medical coordinators to discuss the allegations and the physician's response; or it may require the physician to participate in a more formal conference before one of its complaint review committees. The physician is entitled to be represented by an attorney at either of the latter two types of conferences. Even if a physician is required to participate in a conference with a medical coordinator or complaint review committee, the case may be dismissed.

The board disposed of 744 complaints in FY 2000 through a variety of methods, including dismissals, nondisciplinary corrective action plans, and disciplinary orders. The total number of disciplinary orders issued by the board in FY 2000 was 57 (up slightly from 1999). This figure includes 19 orders reinstating licenses that had previously been subject to certain conditions or restrictions. The disciplinary orders included sanctions ranging from reprimands and/or monetary penalties to license restrictions and license suspensions. The board's medical coordinators conducted 73 conferences. For FY 2000 the board suspended or revoked the licenses of two physicians, a very small number considering the total number of complaints filed and processed.

The board has divided the complaints within its jurisdiction according to eight general categories: incompetency, unprofessional conduct, illness, actions by another jurisdiction, inadequate medical records, becoming addicted, prescribing practices, sexual misconduct, and miscellaneous (see Table 2).

"Unprofessional conduct" is an extremely broad category based upon a section of the Minnesota statutes that could include a variety of both minor (e.g., rudeness toward patients or staff) and serious transgressions. The statute defines the term as any departure from or failure to conform to the minimal standards of acceptable and prevailing medical practice that may or may not result in actual injury to a patient. Consequently, it is difficult to draw a firm conclusion as to whether the large number of "unprofessional conduct" complaints in FY 2000 reflect a serious problem of a particular nature. The other categories that are the most common are those alleging incompetency or malprescribing practices.

A significant number of the incompetency complaints are based on reports from professional liability insurers who are required to notify the board whenever they pay out a settlement or judgment on behalf of a physician in a malpractice case.

The prescribing category was a common subject of complaints for FY 2000 and has been true for many of the previous years as well. A typical prescribing complaint alleges that a physician has over-prescribed pain medications in the treatment of patients with chronic pain problems.

The illness complaints most frequently arise out of allegations that a physician might be suffering from a physical, emotional, or mental impairment that might affect his or her ability to practice medicine safely. Many of the illness complaints are

Table 1

*Number of complaints filed each year with the Minnesota Board of Medical Practice since it began keeping records of such information in FY 1980.*

| Fiscal Year | Number of Complaints Received | Percentage of Change from Previous Year |
|---|---|---|
| 2000 | 786 | (5) |
| 1999 | 825 | (9) |
| 1998 | 907 | (3) |
| 1997 | 938 | (10) |
| 1996 | 1,039 | (13) |
| 1995 | 1,180 | 11 |
| 1994 | 1,054 | (16) |
| 1993 | 1,254 | 2 |
| 1992 | 1,226 | 23 |
| 1991 | 1,001 | (3) |
| 1990 | 1,025 | 26 |
| 1989 | 815 | 14 |
| 1988 | 714 | 22 |
| 1987 | 583 | 40 |
| 1986 | 415 | 83 |
| 1985 | 227 | 125* |
| 1984 | 101 | 9 |
| 1983 | 94 | 22 |
| 1982 | 77 | 4 |
| 1981 | 74 | 124 |
| 1980 | 33 | |

*The increased number of complaints starting in 1985 was due primarily to the Legislature's adding reporting requirements to the Medical Practices Act.

Table 2

*Type and number of complaints filed with the Minnesota Board of Medical Practice, FY 2000.*

| Types | Number |
|---|---|
| Incompetency | 236 |
| Unprofessional conduct | 534 |
| Illness | 59 |
| Actions by another jurisdiction | 9 |
| Inadequate medical records | 67 |
| Becoming addicted | 3 |
| Prescribing practices | 69 |
| Sexual misconduct | 27 |
| Miscellaneous | 192 |

Individual complaints may include allegations of more than one violation. Thus, a physician or other health care practitioner who is the subject of a complaint may find that he or she has been accused of misconduct under several of the above nine categories.

referred by the board to the Health Professional Services Program, a diversion system established in 1994 to assist impaired physicians in a manner that enables them to continue practicing medicine under certain monitoring requirements.

The medical records category usually refers to what the board considers incomplete or inappropriate documentation in patient records.

The sexual misconduct category refers not only to obvious inappropriate sexual advances or activities but also to patient boundary violations that could include inappropriate comments or misunderstood examination questions or techniques.

Under Minnesota law, the board is not allowed to identify the person or persons who file complaints against physicians, unless the complaining party authorizes the disclosure. It is not surprising, however, that 34.8 percent of all the complaints filed with the board in FY 2000 came from patients. This number is a very modest increase from the 34.5 percent of complaints filed by patients in FY 1999. On the other hand, the number of complaints filed in FY 2000 by third parties and family members of the patients decreased from the previous year. Other sources include physicians themselves, other health care professionals, law enforcement agencies, hospitals, medical clinics, malpractice insurance carriers, and other state agencies. Indeed, under Minnesota law, physicians are required to file reports against other physicians and even themselves whenever they have personal knowledge of something that is grounds for disciplinary action. There is a very limited and qualified exception to a physician's reporting duty whenever the knowledge is gained in the course of a physician-patient relationship.

## Conclusion

The Minnesota Board of Medical Practices continues to deal with hundreds of complaints against physicians and other regulated professionals each year. Even though the number of annual complaints is falling, the board still has a substantial caseload. One positive aspect is that the number of license suspensions or revocations and other public disciplinary actions is relatively small. MM

*Kent Harbison and Cynthia Jokela Moyer are shareholders in the law firm of Fredrikson & Byron, P.A. Harbison is an attorney in the firm's litigation department and has been representing physicians and other health care professionals in licensing board proceedings for the past 14 years. Jokela Mayer practices in the firm's litigation and health law groups.*

**North Central Medical Conference**
Presents Exciting Trips From Minneapolis/St. Paul in Spring 2001



***Romantic Spain***

**May - 10 days/8 nights • *$1,649* *(approximately)***

***MADRID*** Located in the center of the Iberian Peninsula, Madrid is filled with history, yet a modern, active city offering countless attractions.
***COSTA DEL SOL*** - which rims Málaga, is one of the most important tourist areas in Spain. An opportunity to visit Gibraltar, Morocco and Granada.
***SEVILLE*** - is the Andalusian capital and the fourth largest Spanish city. Bathed by the Guadalquivir River, Seville has a strong identity all its own, while its popular quarters, such as Santa Cruz, are as interesting as its many monuments and old buildings.



***Germany (River boat cruise); Prague, Czech Republic; Vienna, Austria***

**April - 9 days/7 nights • *$1,989* *(approximately)***

Explore the wonders of ***Germany*** on a three night river boat cruise on the Danube-Main canal. Bavarian medieval towns, historic buildings and cultural treasures line the route. Next discover ***Prague***, the most majestic of cities, where monuments, ancient houses, palaces, churches and gardens await you. Visit ***Vienna***, the capital of Austria and historical metropolis of the Austro-Hungarian Empire. Rich in baroque art and architecture, Vienna is one of the most famed towns in Austria. A visit to Budapest completes this exciting trip.

**AVAILABLE TO MEMBERS, THEIR FAMILIES AND FRIENDS.**

**Prices are per person, double occupancy, plus government taxes.**

***For additional information and a color brochure contact:***
**GLOBAL HOLIDAYS**
8000 West 78th Street, Suite 345, Edina, MN 55439-2538
**(952) 918-8950** Toll Free:**1-800-842-9023** FAX **(952) 918-8975**

## Central Minnesota Opportunities

**CENTRACARE Clinic** *is a progressive and growing 127-physician multi-specialty clinic with nine Central Minnesota sites. Our clinics offer a comprehensive income and benefits package and are conveniently located between the Twin Cities and prime Minnesota lakes area. Central Minnesota offers an outstanding lifestyle with quality schools and abundant recreational activities. CentraCare Clinic is currently recruiting for the following locations:*

**CENTRACARE Clinic**
Women & Children's Center

***Join*** *an exceptional 22-physician clinic specializing in pediatrics and obstetrics/gynecology which currently has openings in the following specialties:*

**Allergy**
**Reproductive Endocrinologist**
**Pediatrics**

**CENTRACARE Clinic**
Heartland

***Join*** *an experienced 6-physician clinic which currently has an opening in:*

**Family Practice physician who practices Obstetrics**

**CENTRACARE Clinic**
Melrose

***Join*** *6-family practice physicians who practice obstetrics in a rural clinic setting:*

**Family Practice physician who practices Obstetrics**

**CENTRACARE Clinic**
River Campus

***Join*** *an exceptional 80-physician specialty clinic which currently has openings in the following specialties:*

**Allergy**
**Cardiology**
**Dermatology**
**Gastroenterology**
**Hospitalist**
**Infectious Disease**
**Internal Medicine**
**Neurology**
**Pediatric Critical Care**
**Rheumatology**

*For more information, please contact:*

***Karla Donlin***
*donlink@centracare.com*
***Kristine Cunningham***
*cunninghamk@centracare.com*
*Physician Recruiters*
*1406 Sixth Avenue North*
*St. Cloud, MN 56303*
***1-800-835-6652***
*www.centracare.com*

**CENTRACARE Clinic**



**Eligible employed and resident physicians**

# Strike a blow for your rights without ever going on strike.

The American Medical Association (AMA) introduces Physicians for Responsible Negotiation (PRN) to bargain for you from a position of strength and to maintain AMA standards and ethics at all times.

**PRN will:**

- Conduct a professional campaign to certify PRN as your labor organization
- Negotiate your contract including working conditions and patients' rights
- Oversee contract administration
- Subscribe to AMA's Code of Ethics

**PRN will not:**

- Authorize physician strikes or withholding of necessary care
- Represent nonphysicians
- Affiliate with traditional labor unions

For more information about PRN or other AMA physician advocacy initiatives, call the AMA at **312 464-4367**

American Medical Association
Physicians dedicated to the health of America

# Peer Review

## *Can the Board of Medical Practice Subpoena Your Files?*

*The state appeals court maintains that peer review records are confidential.*

Lora Esch Mitchell, J.D., David P. Bunde, J.D., Margo S. Struthers, J.D.,
Kari L. Wraspir, J.D., and Rebecca Egge Moos, J.D.

Your institution receives a subpoena from the Board of Medical Practice seeking peer review records and credentialing files pertaining to Dr. X. Do you have to turn over the records? The Minnesota Court of Appeals held in March of 1999 that you do not if the peer review privilege applies.

When the Complaint Review Committee of the Minnesota Board of Medical Practice investigates a physician, it often subpoenas the health care institutions where the physician practices. The subpoenas commonly seek documents contained in credentialing and peer review files. Many health care institutions have resisted the subpoenas under a Minnesota statute that makes information confidential if it has been acquired by a peer review committee. Other institutions have complied with the subpoenas and provided confidential peer review files to the board. Until recently, the courts had not addressed whether the board has the legal right to demand peer review files.

The Minnesota Court of Appeals finally had opportunity to consider the issue when the board sent subpoenas to several health care institutions for a proceeding against a physician. The board sought information about the physician from peer review and credentialing files. Three hospitals and an HMO (hereafter the "Providers") challenged the subpoenas. The Providers asked the court to quash the subpoenas because they sought information protected under the peer review privilege. Two years later, the case made it to the Minnesota Court of Appeals and resulted in a landmark ruling.[1]

### *Origins of the Peer Review Privilege*

When responding to a subpoena, health care providers must disclose relevant evidence unless it is privileged. Most health care providers are familiar with physician-patient privilege. The peer review privilege is similar, except that it protects communications that occur in connection with peer review instead of communications between doctors and patients.

Confidentiality for peer review activities became the law in Minnesota in 1971 when the Minnesota Legislature enacted a statute that asserts: "All data and information acquired by a [peer] review organization...shall be held in confidence, and shall not be subject to subpoena or discovery."[2] The purpose of the statute is to increase the quality of medical care by encouraging the frank exchange of information among physicians.

Most states have a similar statute, although many of these statutes are narrower than Minnesota's. For example, some states specifically allow licensing boards to obtain information from peer review files. Other states limit the scope of the privilege to "civil actions" or malpractice cases. Minnesota's statute is broader; it protects "all data and information" a peer review committee acquires from subpoena or discovery. The Legislature did not make an exception for the Board of Medical Practice.

### *The Arguments*

Despite the breadth of Minnesota's peer review statute, the board has consistently sought information from peer review files. In the Court of Appeals case, both sides presented several arguments concerning the board's ability to subpoena this information.

The board argued that it needs access to peer review files to assure that the physicians practicing in Minnesota are competent professionals. The board further argued that without peer review information, health care institutions would be able to bury evidence of potential practice problems and that its investigations would be hampered. The board also asserted that the peer review statute does not apply to administrative actions before a professional licensing board. Last, the board claimed that the peer review privilege protects only documents that a peer review committee "generates," not documents the committee "acquires." Under this argument, the peer review privilege would not cover documents that a peer review committee gathered from another source, such as medical records or patient complaints.

The Providers pointed out that the language of the statute is absolute and does not create an exception for the board. Moreover, confidentiality is essential if peer review is to function effectively. If the board can subpoena peer review files, physicians will be less likely to engage in the open and honest exchange that the statute is intended to foster. The Providers also argued that the reporting obligations under Minnesota and federal law provide sufficient information for the board to assure that the physicians are competent professionals. The Minnesota Medical Association, the Minnesota Hospital and Healthcare Partnership, and the American Medical Association submitted an amicus curiae ("friend of the court") brief supporting the Providers' arguments and emphasizing the importance of confidentiality.

## *The Decision*

The Court of Appeals sided with the Providers. The court relied on the language of the peer review statute and held that the protection for peer review files applies to all types of subpoenas, including those issued in administrative proceedings initiated by the board. In the court's view, the Legislature weighed the competing policy considerations when it enacted the peer review statute and decided that all data and information a peer review committee acquires is pro-tected from subpoena or discovery. If the board wants a change in the law, the court held, the board must approach the Legislature. The court also rejected the board's argument that the protection for peer review files includes only those documents the committee "generates."

In summary, the court declared: "The confidentiality provision of the peer review statute applies to subpoenas issued by the board. The confidentiality provision encompasses all documents contained in [peer] review organization files, including documents a [peer] review organization obtains from other sources."

The board chose not to seek review of the decision in the Minnesota Supreme Court.

## *Significance*

The Court of Appeals decision is significant for two reasons. First, the decision establishes the rights of health care providers and the board with respect to peer review files and confirms that a board subpoena does not override the peer review privilege. Thus, if the privilege applies, a health care institution is under no obligation to supply information from its peer review files to the board. In fact, an institution could run afoul of the statute's penalty provision if it provides privileged information to the board. Under the statute, it is a criminal misdemeanor to disclose confidential information about peer review proceedings. The one exception to this provision permits a peer review organization to disclose information "to the extent necessary to carry out one or more purposes of a review organization." If this exception applies, the committee may choose to disclose confidential information.

Second, the decision clarifies the scope of the privilege. The decision establishes that all information a peer review organization "acquires" is protected, not simply the information it "generates." This distinction is critical in assuring that the board and private litigants cannot gain information about peer review activities by learning what records the committee reviewed. Peer review committees often analyze complaints and medical records. These documents are "acquired" by the committee but are not "generated" by the committee. The decision establishes that copies of these records cannot be obtained from peer review files. Although the board can obtain medical records and complaints from other sources, absent an applicable reporting obligation under state law, the board is not entitled to learn what medical records and patient complaints a peer review committee reviewed.

The board will, no doubt, continue to issue subpoenas. If your institution receives a board subpoena, the Court of Appeals decision places you on solid ground if you refuse to produce peer review records, as long as the records are truly covered by the peer review statute. To be covered, your institution's peer review committee must meet certain criteria, and the committee's activities must be treated as confidential.

## *Conclusion*

The peer review statute protects against the disclosure of materials acquired by peer review committees—including disclosure to the board. If your institution receives a subpoena, the Court of Appeals has held that you are not required to provide information contained in the files of a qualified peer review organization. MM

*Lora Esch Mitchell and David Bunde of Fredrikson & Byron, P.A., represented Fairview-University Medical Center and North Memorial Health Care. Margo Struthers and Kari Wraspir of Oppenheimer, Wolff & Donnelly, LLP, represented Methodist Hospital. Rebecca Egge Moos, of Bassford, Lockhart, Truesdell & Briggs, P.A., represented HealthPartners and Unity Hospital.*

CITATIONS

1. The court's decision is entitled *In re the matter of the Petition of Fairview-University Health Care to Quash Subpoena of Administrative Law Judge,* 590 N.W.2d 150 (Minn. Ct. App. 1999).
2. Minnesota Statute § 145.64.

# FAMILY PRACTICE

Northwest Family Physicians

Dynamic, independent 3 location, single-specialty practice in northwest Minneapolis suburbs is seeking additional associates for its Crystal and Plymouth sites. OB is available if desired.

- Partnership opportunity after 2 years
- Competitive salary with incentives
- Excellent benefits, 401k/employer paid pension
- Practice at own site/one hospital
- Physician-owned

*Please contact or fax CV to:*
*Chris Bennett, M.D.*
*5502 W. Broadway, Suite 200,*
*Crystal, MN 55428*
*763-287-6500 ◆ fax 763-531-2105*
*visit our website at www.NWFPC.com*

**ST. CLOUD MEDICAL GROUP**
*Growing to meet your needs.*

St. Cloud Medical Group is recruiting

**BC/BE physicians in family practice and pediatric medicine**

to join our 44-physician group. The St. Cloud Medical Group is an independent physician owned facility, which continues to expand in the St. Cloud area. St. Cloud Medical Group is a young and dynamic group of physicians who provide quality health care throughout Central Minnesota.

In pediatrics, you would be rotating call with six other pediatricians, and in family practice, you would be rotating call with eighteen other family practitioners. SCMG provides an excellent salary and fringe benefit package and provides a quality of life for the individual and their family members. If you are interested in working with a physician- owned operation that controls it's own destiny, please send your CV to:

Daryl Mathews, Administrator
St. Cloud Medical Group
1301 W. St. Germain
St. Cloud, MN, 56301
or call 320/251-8181
or fax your CV to 320/251-6942

# Continuing Medical Education

**sponsored by Allina Health System**

## October 2000

**6 The Prevention, Diagnosis and Treatment of Breast Disorders for Primary Care Providers**
PRESENTED BY: The Breast Program of Mercy & Unity Hospitals
LOCATION: Earle Brown Heritage Center, Brooklyn Center

**13 Minnesota and the Aging Driver: Your Options as a Professional**
PRESENTED BY: Allina Hospitals & Clinics, AAA, GRECC/VA Hospital, State of MN Dept. of Public Safety, and Sister Kenny Rehabilitation Services
LOCATION: Earle Brown Heritage Center, Brooklyn Center

**26 & 27 2000 Front Line Neurology Symposium**
PRESENTED BY: Minneapolis Neuroscience Institute of Abbott Northwestern Hospital and the American Association of Neuroscience Nurses–Twin Cities Area Chapter
LOCATION: DoubleTree Hotel, Bloomington, by Mall of America

**28 7th Annual Orthopedics & Sports Medicine Symposium**
PRESENTED BY: Mercy & Unity Hospitals
LOCATION: Earle Brown Heritage Center, Brooklyn Center

## November 2000

**3 Patient Educator Conference**
PRESENTED BY: Allina Hospitals & Clinics
LOCATION: Abbott Northwestern Hospital, Minneapolis

## February 2001

**10 Twin City Eye Meeting**
PRESENTED BY: University of Minnesota Department of Ophthalmology and Phillips Eye Institute
LOCATION: DoubleTree Park Place, St. Louis Park, MN

## March 2001

**21 & 22 & 23 Pain and Suffering**
PRESENTED BY: Additional information to follow
LOCATION: Earle Brown Heritage Center, Brooklyn Center

## April 2001

**6 & 7 Cardiology Emergencies**
PRESENTED BY: Minneapolis Heart Institute
LOCATION: Hotel Sofitel, Minneapolis, MN

**For more information contact:**
**Allina Education and Research Administration at (612) 775-9626**

ALLINA HEALTH SYSTEM

®Allina Health System



Introducing the
# Thermal Brewing System
from US Offfice Products and MMBR

# "Coffee, anyone?"

**Enjoy fresh great-tasting coffee all day long. Here are a few reasons to consider adding the thermal brewing system and the US Office Products coffee service to your clinic:**

CALL 651/688-9384

TODAY FOR MORE

INFORMATION ON HOW TO

GET GREAT-TASTING

COFFEE IN YOUR CLINIC'S

BREAKROOM TOMORROW.

ASK FOR ANY OF

THESE MMA ACCOUNT

REPRESENTATIVES:

ERIC WICKAM,

MARIE CHRISTIANSON,

OR JIM CHRISTIANSON.

- ☑ Choose from an extensive line of excellent coffees ranging from as low a **4¢ per cup** to 12-13¢ per cup (for Starbucks). This offer provides MMBR Members special pricing lower than the already low pricing given any other US Office Products customers on coffee and related breakroom products.
- ☑ The patented thermal carafes provide hot fresh coffee for 12+ hours without using burners or additional heating.
  - No burnt-tasting coffee
  - No wasted, thrown-away coffee
  - No burners left on overnight
- ☑ Qualifying practices will receive a free coffee tasting and a free pack of Starbucks coffee.
- ☑ Great breakroom products when you need them; order your coffee over the phone or the internet and enjoy it in your breakroom tomorrow.

US Office Products℠

MMBR
Minnesota Medical Business Resources
Owned By MMA & HMS

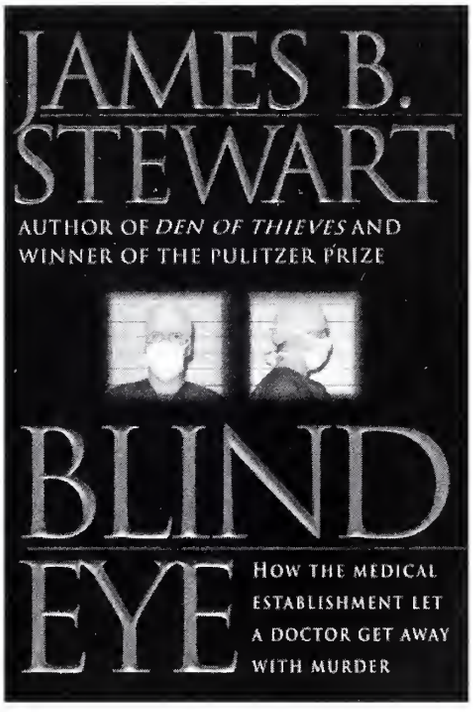
# Policing the Medical Profession

*Two books, "Blind Eye: How the Medical Establishment Let a Doctor Get Away with Murder" by James Stewart and "State Medical Boards and the Politics of Public Protection" by Carl Ameringer, reveal weaknesses in a system designed to protect both physician rights and public safety.*

Reviewed by Charles R. Meyer, M.D.

It is 2 a.m. and a white-coated physician enters a postoperative patient's hospital room. The patient stirs and the doctor calmly reassures her that he is just adjusting her IV. He pulls a syringe out of his pocket and injects a fluid into the patient's IV. Ten minutes later, a nurse on a routine check discovers the patient not breathing and calls a code. Despite resuscitation efforts, the patient, who was uneventfully recovering from gallbladder surgery, expires. The doctor has killed. He will do it again.

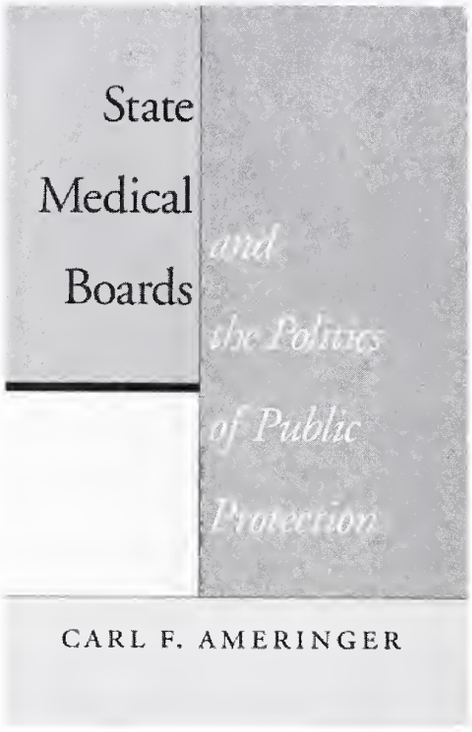
Sound like a scene from a Hitchcock movie or a Robin Cook novel? Actually, it's one of many incidents in James Stewart's "Blind Eye: How the Medical Establishment Let a Doctor Get Away with Murder," (New York: Simon and Schuster, 1999) the bizarre, true story of Dr. Michael Swango. After a National Merit performance at his Quincy, Illinois, high school and an impressive academic record at Millikin and Quincy colleges, Swango enrolled in Southern Illinois University Medical School. While his grades remained strong, the aspects of his peculiar behavior first surfaced in medical school. Swango reacted almost violently to criticism. Fellow students suspected him of fabricating histories and physicals. He evinced a macabre interest in death, especially gruesome death. And his uncanny proximity to sudden, unexpected deaths of patients earned him the nickname "007," Ian Fleming's designation for licensed to kill.




This pattern persisted at Ohio State, where Swango did a neurosurgery internship. After reports of incompetence and suspicious patient deaths, Swango was dismissed from the neurosurgery residency. He returned to Quincy, where he secured a job as a paramedic. After many of his fellow paramedics became violently ill when they ate food brought to them by Swango, lab tests demonstrated that Swango had tried to poison them with arsenic. He was tried and convicted of assault and served a two-year prison term.

Over the next eight years, despite a dishonorable dismissal from a residency and a felony violation, Swango was accepted in an internal medicine residency program in South Dakota and a psychiatric residency on Long Island, acquired a mission job as a physician in Zimbabwe, Africa, and worked for numerous ambulance companies as a paramedic. The trail of unexplained patient deaths recurred in each job. According to Stewart, "[Swango] began working as a paramedic even before he entered SIU medical school in 1979, and except for the time he was in prison in Illinois, had access to potential victims in an emergency or hospital setting almost continuously until his arrest at O'Hare airport in 1997." He entered the Sheridan Correctional Institute in 1999 to serve a two-year term, not for murder, but for falsifying his credentials on numerous applications.

"Blind Eye" is an indictment of a system that failed to protect the public from a psychopathic physician. The failures highlighted and vilified by Stewart include a conspiracy of silence by fellow physicians, a faulty national reporting system, and spotty credential checking by training institutions. Indeed, Swango's stay at many of the ports on his professional journey would have been longer were it not for warnings from an Illinois judge and family members of Swango's deceased girlfriend, who committed suicide.




The history of the system whose failings Stewart dramatizes is delineated in "State Medical Boards and the Politics of Public Protection" by Carl F. Ameringer (Baltimore: Johns Hopkins University Press, 1999). Prior to the 1960s and '70s, state medical boards restricted most of their activity to physician licensure. Discipline for incompetence was left to hospital medical staffs and medical societies whose peers were supposed to evaluate each other collegially and maintain the quality, and autonomy, of the profession. "These institutions invoked norms and ethics that maintained traditional bonds between physicians and their patients, discouraged competition, and supported fee-for-service medicine." Sparked by a 1963 report criticizing state board policing of the medical profession, by a rise in malpractice cases, and by antitrust legislation that further cowed physicians from reporting incompetent fellow physicians, state boards in the '70s increased consumer representation, decreased medical society representation, and took on more malpractice complaints. According to Ameringer, "Board proceedings became more legalistic, case loads increased, and laws mandating public access increased exposure to media and consumer interest."

The "modern" state board that emerged in the '80s was intended to balance doctors' right to privacy and consumers' right to know. It tackled cases of physician chemical dependency, sexual misbehavior, and incompetence. The number of sanctions issued by state boards increased eightfold from the '80s to the '90s.

Yet, for many, the system still was not guarding the public. The National Practitioner Data Bank, a repository of actions against practitioners established in 1986 to prevent peripatetic Swangos from moving their incompetence to another state, struggled because it was voluntary and was viewed by much of the medical community as a Big Brother watchdog. Ineffective government-mandated quality initiatives like PSROs and PROs were bobbies without billy clubs.

In response to this perceived inadequate surveillance of the medical profession, omnipresent, omniscient ombudsman Sidney Wolfe formed the Health Research Group, which published "Questionable Doctors," available in a national four-volume $300 edition or in "regional" editions (by Sidney Wolfe, Phyllis McCarthy, Alana Bame, and Benita Marcus Adler. Washington, D.C.: Public Citizen, 2000.) The 1998 Minnesota/Wisconsin volume lists all doctors by name who have been publicly sanctioned by the Board of Medical Practice. The details for each case are included verbatim from the public transcript. Their Web site states: "A license to practice medicine is a hard-won privilege. It is a privilege to hear our innermost thoughts, to see us naked, to cut us open, and to provide us with potentially dangerous drugs. Yet for too long the state and federal government agencies chartered to protect us from those no longer fit to hold that privilege have fallen down on the job ... failed to catch doctors guilty of incompetence, drunkenness, or patient abuse, or have let them get away with slaps on the wrist such as fines or reprimands." In Wolfe's eyes, physicians also have lapsed: "Doctors and their ostensible gatekeepers have failed to realize that consumers need to protect themselves. They have either refused to provide information on those shoddy doctors they have spotted or they have made it awfully hard to get."

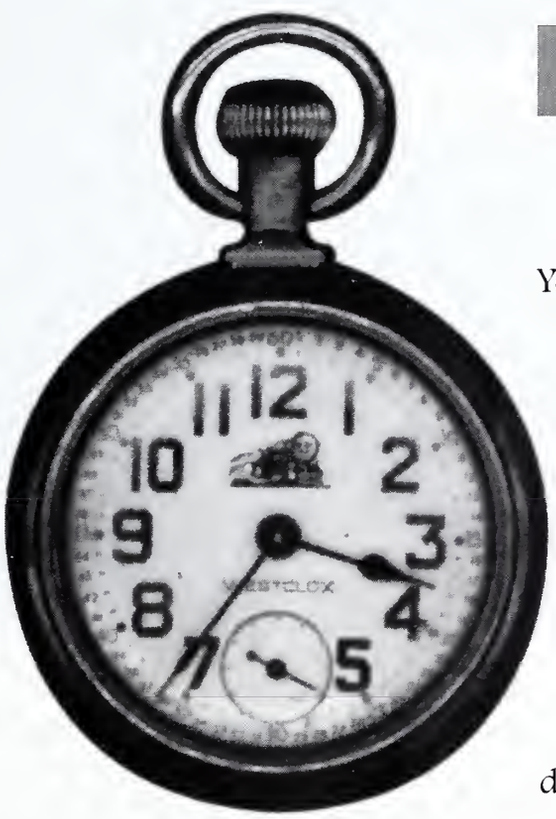
It's hard to justify the actions of many of the players in James Stewart's drama. Fears of personal and institutional liability or physical reprisal seemed to trump their concern for public safety. But the medical profession's "conspiracy of silence" alleged by Stewart and Wolfe is not so simply dismissed. Any physician who has participated in evaluating another physician's competence knows that these issues are seldom so clear-cut. Most questionable physicians are not psychopaths. Most questionable clinical performance is not blatant malpractice. Most inquiries into physician performance are judgment calls where instant-replay hindsight can give a deceptively clear view of what was hazy when the decision was made. And Wolfe's book and Web site reduce the analysis of board performance to sports-page statistics that assume that an undiscovered mass of incompetent physicians exists so the "good" boards find the most offenders and have the most sanctions.

Michael Swango's story is an exposé of individual psychopathology and institutional dysfunction that never should have happened. In fact, this past September, Michael Swango pled guilty to fatally poisoning three patients at the Long Island VA and will serve a life sentence without parole. Patients want protection from inadequate physicians, and doctors want "bad" medical practice eliminated. Yet doctors also want fairness, either as judge or judged. The system has improved in the past 40 years. But the perfect balance between protection for the public and justice for the professional is still elusive. MM

*Charles Meyer is editor-in-chief of* Minnesota Medicine.

# You've been elected President of your medical specialty society.

**You've got the ideas. You've got the ambition. But, do you have the time?**



# MSBC does.

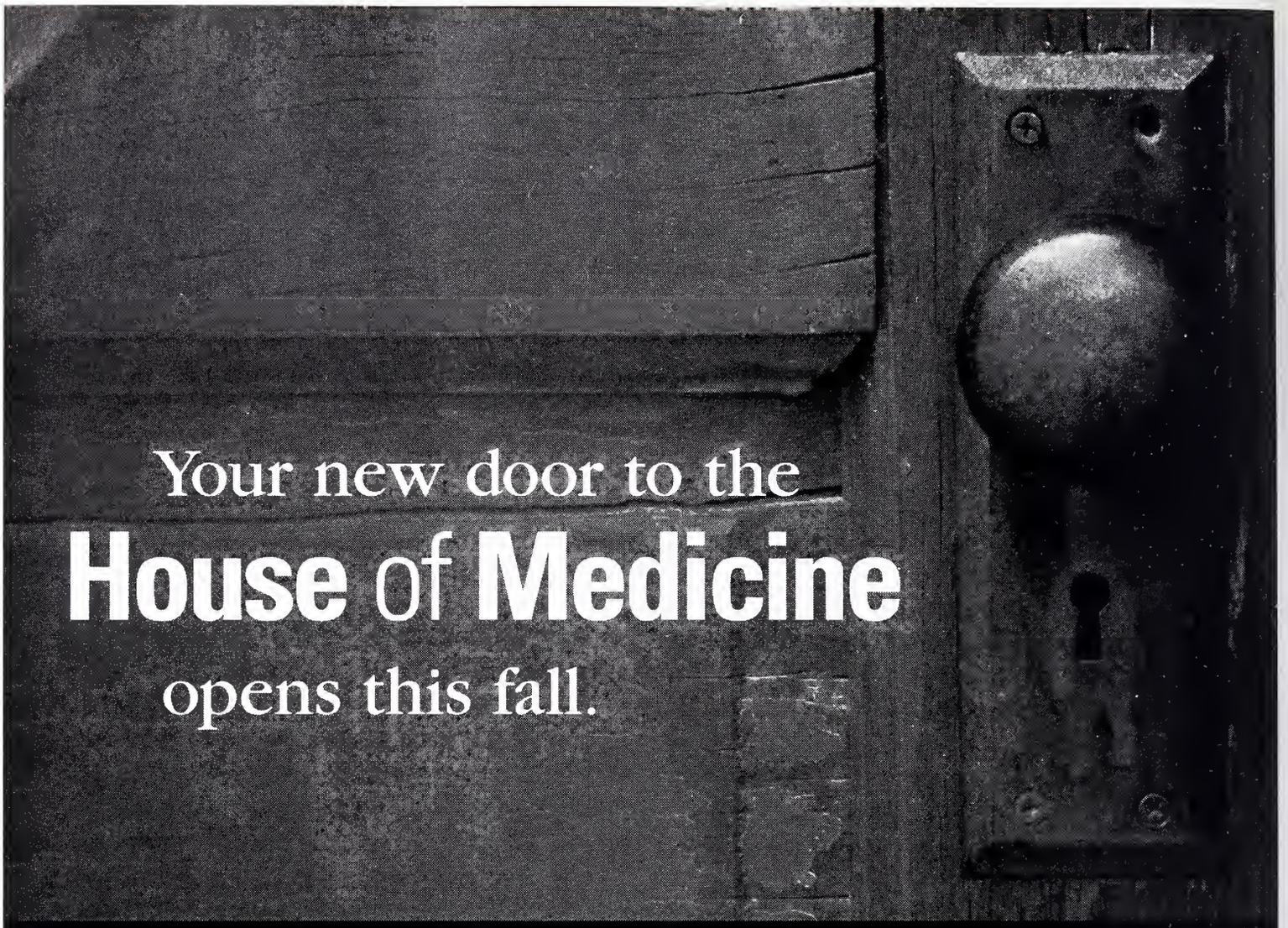
Your colleagues have honored you by electing you to serve as an officer of your society. They respect your professional and leadership skills. You've got the ideas and ambition it takes to make your society an integral part of your profession.

However, the thought of you and your office staff taking time away from patients to manage the day-to-day activities of your association somehow takes away the thrill in what should be a very exciting time for you.

**MSBC offers a wide range of affordable, efficient services designed specifically to meet the administrative needs of medical societies, large or small.**

Management Services By Choice (MSBC), a program of the Minnesota Medical Association, can help. Our professional staff will work directly with you to expand, improve, or develop new programs to best serve your membership. Call 612/378–1875 or toll free at 800/342–5662 for more information or visit our website at www.mnmed.org/MSBC.

MSBC
MANAGEMENT SERVICES BY CHOICE
A PROGRAM SPONSORED BY THE MMA




## Save the date. Take the floor. **Raise the roof.**

For the first time ever, the American Medical Association Organized Medical Staff Section will open its door at the Interim Meeting to all physicians — regardless of practice affiliation or membership status — at a unique "Open House" gathering in Orlando, Florida, November 30 through December 4, 2000.

**Your advocate for positive change.**
The AMA wants to help you overcome the incredible challenges you face. Reduce onerous regulations and managed care demands. Protect your autonomy and patient relationships. Ensure appropriate reimbursement. Make sure no one treats physicians like commodities.

**Your place to speak up.**
To help unify the AMA and the nation's front-line physicians, this one-of-a-kind meeting offers you a direct avenue for raising your issues and concerns and proposing solutions.

**Your opportunity to act.**
The AMA will open the door. It's up to you to step through. And because your participation is so important, there's no fee. Just sign up and attend. For more information, call **800 262-3211,** or visit us online at **www.ama-assn.org/omss**

## Register today!

**AMA Organized Medical Staff Section (OMSS)**
**2000 "Open House" Meeting**
November 30–December 4, 2000
The Hilton in the Walt Disney World Resort
Orlando, Florida

American Medical Association
Physicians dedicated to the health of America

# *A Calendar of Continuing Medical Education Courses*

*Provided as a service of the MMA Committee on Accreditation and CME.* For assistance with scheduling meetings or for information on future medical meetings and CME courses, please contact the MMA office: 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; 612/378-1875. For a complete listing of our calendar, visit the MMA Web site at www.mnmed.org. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

## NOVEMBER 2000

Nov. 9-10 **Critical Care 2000** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Marilyn Horstman, HealthPartners, Continuing Medical Education, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.

Nov. 9-11 **Radiology 2000** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Registrar, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636; cmereg@tc.umn.edu.

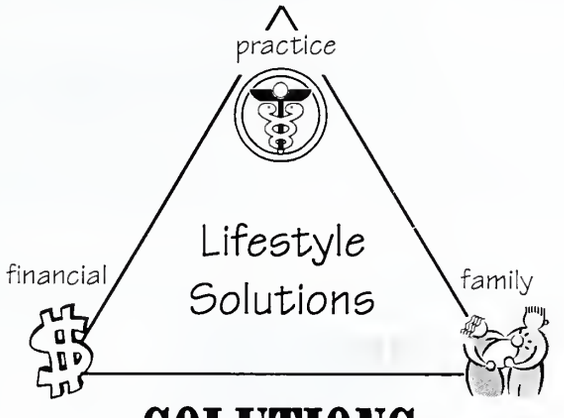
Nov. 10 **Annual Minneapolis/St. Paul Diabetes Forum** Hennepin County Medical Center; Radisson Conference Center, Plymouth, MN. CONTACT: Robin Hoppenrath, 701 Park Avenue, M/C 861-B, Minneapolis, MN 55415; 612/337-7128.

Nov. 11 **Minnesota Society of Neurologic Sciences Fall Seminar 2000–Cerebrovascular Disease: An Update** Minnesota Medical Association in joint sponsorship with Minnesota Society of Neurological Sciences; Bloomington, MN. CONTACT: Robyn Lampright, Minnesota Society of Neurological Sciences, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/362-3738; rlampright@mnmed.org.

Nov. 17-18 **Primary Care Ortho** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Marilyn Horstman, HealthPartners-IME, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.

Nov. 17-18 **14th Annual Primary Care Update** Institute for Research and Education; Radisson Hotel and Conference Center, Plymouth, MN. CONTACT: Mary White, Continuing Medical Education, Institute for Research and Education, 3800 Park Nicollet Boulevard,


P R O V I D I N G




SOLUTIONS

• Emergency Medicine • Locum Tenens

ACUTE CARE, INC.

For more information, please call
**800.729.7813 or 515.964.2772**
e-mail address: jeffw@acutecare.com
nicoleo@acutecare.com
home page: http://www.acutecare.com

*If you are looking for professional growth and long term financial security, consider*

PREVEA CLINIC

PREVEA CLINIC, Green Bay, Wisconsin, is a large multi-specialty physician owned clinic, expanding to meet a thriving patient base in a 200,000 community with a strong work ethic, located in beautiful Northeastern Wisconsin. Enjoy boating on the shores of Lake Michigan and an array of outdoor sports plus a quality family life focusing on traditional values.

Professionally you will share ownership and the ability to control medical choices for care with other department members. Excellent compensation and benefits are being offered for the following opportunities:

- Dermatology
- Endocrinology
- Family Medicine
- Hospitalist
- Neurology
- Neurosurgery
- Obstetrics/Gynecology
- Pediatric Critical Care
- Pediatric Ophthalmology
- Rheumatology
- Urology

For more information regarding shareholder opportunities with Prevea Clinic, contact Claudine Taub at 1-800-236-3030 or fax your CV: 920-431-3043. Or, visit our website at http://www.prevea.com.

# MEDSTAT

SPECIALIZED MEDICAL TRANSPORTATION

***"A VITAL LINK BETWEEN PATIENT AND PHYSICIAN."***

**DEDICATED TO ASSISTING**

**THE MEDICAL COMMUNITY**

**IN THE PROVISION OF**

**OPTIMAL PATIENT CARE**

**AND CLIENT SERVICES.**

Much more than a courier service, MEDSTAT can meet the unique needs of the medical community. MEDSTAT's relationship with MMBR allows MMA members and their clinics to receive medical transportation rates that are generally below that of traditional transportation companies.

## MEDSTAT is a unique transportation system that can provide you with the following:

- Medical interoffice transport
  PATIENT RECORDS, FILMS, OFFICE CORRESPONDENCE, ETC.
- Laboratory specimen pick up and delivery
- Blood transport services
- Medical distribution
- Medical supply pick up and delivery
- Medical vendor/medical provider transport
- Pharmacy distribution
  RETAIL, WHOLESALE, COMMERCIAL AND INTRAVENOUS
- Home health care/patient interactive pick up and delivery
- Limited on-demand services

# MEDSTAT

SPECIALIZED MEDICAL TRANSPORTATION

***MEDSTAT SYSTEMS, INC.***
5155 East River Road, Suite 407
Fridley, MN 55421
Office: 612/586-8146
Toll free: 888/234-3618
Fax: 612/586-8147
email: vitallink@earthlink.net
www.medstatsystems.com

MMBR
MINNESOTA MEDICAL BUSINESS RESOURCES
OWNED BY MMA & HMS

**Minnesota Medical Business Resources**
3433 Broadway Street NE, Suite 395
Minneapolis, MN 55413
612/623-2860
e-mail: mmbr@mnmed.org
internet: mnmed.org/mmbr

St. Louis Park, MN 55416; 952/993-3531; whitemj@hsmnet.com.

DECEMBER 2000

Dec. 1 **33rd Annual Symposium on Obstetrics and Gynecology** North Memorial Health Care; North Memorial Medical Center, Robbinsdale, MN. CONTACT: Stephanie Dean, 3500 France Avenue North, Suite 102, Robbinsdale, MN 55422-2806; 763/520-7274; Stephanie.Dean@northmemorial.com.

Dec. 4-8 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Dec. 7-8 **22nd Annual Cardiovascular Conference** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Marilyn Horstman, HealthPartners, Continuing Medical Education, 640 Jackson Street, St. Paul, MN 55101; 651/221-3992.

Dec. 8 **9th Annual Family Practice Update** Hennepin County Medical Center; Sheraton Inn Airport, Bloomington, MN. CONTACT: Robin Hoppenrath, 701 Park Avenue, M/C 861-B, Minneapolis, MN 55415; 612/337-7128.

JANUARY 2001

Jan. 19 **2001 Family Practice Conference** St. Mary's/Duluth Clinic Health System; Duluth Entertainment Convention Center, Duluth, MN. CONTACT: Catherine Koski, 400 E. Third Street (5AV2ME), Duluth, MN 55805; 218/786-3854.

Jan. 19-21 **Mid-Minnesota Medical Symposium on Primary Care** St. Cloud Hospital; Holiday Inn Hotel & Suites, St. Cloud, MN. CONTACT: Sandi Theisen, St. Cloud Hospital, CME Division of Medical Staff Services, 1406 Sixth Avenue North, St. Cloud, MN 56301; 320/251-2700 ext. 54551.

Jan. 22-26 **A Mayo Clinic Comprehensive Review: Reconstructive Surgery of the Upper and Lower Extremity** Mayo Clinic/Mayo Foundation; Westin Hapuna Beach Prince Hotel, Mauna Kea Resort; Kohala Coast, Big Island of Hawaii. CONTACT: Registrars, Mayo School of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

FEBRUARY 2001

Feb. 5-9 **Mayo Foundation Presents: Gastroenterology and Hepatology for the 21st Century** Mayo Foundation; Hapuna Beach Prince Hotel, Mauna Kea Resort, Kohala Coast, Big Island of Hawaii. CONTACT: Registrars, Mayo Foundation, Mayo School of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Feb. 10 **HealthEast Winter Medical Seminar 2001** HealthEast Care System; The Westin Regina Resort/Puerta Vallarta, Puerta Vallarta, Mexico. CONTACT: De Granstrom, 1700 University Avenue West, St. Paul, MN 55104; 651/232-5104.

Feb. 20-24 **Whitefish 2001: A Primary Care Odyssey** MeritCare Health System and UND School of Medicine and Health Sciences; Grouse Mountain Lodge, Whitefish, MT. CONTACT: Cheri Rodenburg, MeritCare Critical Care Services, 720 4th Street North, Fargo, ND 58122; 701/234-6913.

Feb. 26-March 3 **Mayo Clinic Contemporary Issues in Adult Clinical Urology** Mayo Foundation; Westin Hapuna Beach Prince Hotel, Mauna Kea Resort, Kohala Coast, Big Island of Hawaii. CONTACT: Registrars, Mayo Foundation, Mayo School of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

JUNE 2001

June 17-20 **Mayo Clinic OB/GYN Clinical Reviews** Mayo Foundation; Whistler, BC, Canada. CONTACT: Registrars, Mayo School of Continuing Medical Education, Mayo Clinic, 200 First Street SW, Rochester, MN 55905; 800/323-2688; cme@mayo.edu.

**BUFFALO CLINIC, P.A.**

The Buffalo Clinic and Monticello Clinic, an independent physician owned practice is seeking to ad BE/BC physicians in:

- **Internal Medicine**
- **Pediatrics**

Buffalo Clinic, P.A. is a 27-physician multispecialty group with 2 practice locations, Monticello and Buffalo. Both locations are located adjacent to the hospital.

Buffalo Clinic guarantees salary for the first 2 years with partnership after 2 years, excellent contract benefits.

If interested, contact:

**Linda Dircks, Administrator**

Buffalo Clinic

**1700 Hwy 25 North, Buffalo, MN 55313**

**Phone: 763/287-6877 Fax: 763/287-6805**

# You know it takes more than this to run a successful medical practice.




That's why Office Depot and
Minnesota Medical Business Resources give you...

## The Office Supply Program

Minnesota Medical Business Resources and Office Depot are pleased to offer the following special program for members of the Minnesota Medical Association and their clinics.

The Office Supply Program includes:

- Up to 80% off list price on the items most frequently ordered by medical clinics.
- Average of 45% off list price on all other stocked items.
- 750 items of furniture available for next day delivery.
- Easy ordering via Fax or Internet—customized forms developed for your clinics based upon frequently ordered items.
- Retail market pricing on electronics, business machines and software.
- FREE next business day delivery to all of Minnesota.
- Retail store purchasing cards for your emergency needs, copies, specials. *Receive your contract pricing at our retail stores.*
- Quarterly rebate of 3% on stocked item purchases.

To establish an account or if you have questions, please contact:

**Brad Broman**
**Account Manager**
**Direct line: 612-513-4056 • Outstate: 800-392-4777 x4056**
**email: bbroman@officedepot.com**

Office DEPOT®
Business Services Division

MMBR
Minnesota Medical Business Resources
Owned By MMA & HMS

# *Physician Opportunities and Miscellaneous Listings*

***Classified rates are $2.50 a word (300-word maximum). Minimum monthly charge is $50; with box number $5 additional. Ads will not be accepted by phone.***

- Placement of ads must be made six weeks before the date of publication, e.g., November 15 for January ad. Please send ad requests to *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; or by fax, 612/378-3875; or e-mail, mm@mnmed.org.
- The publisher reserves the right to decline or withdraw advertisements. The publisher is not responsible for clerical or typographical errors and is not permitted to divulge the identity of advertisers who have replies sent to box numbers.
- Cancellation of ads must be made by the first of the month preceding month of issue.

---

**Quello Clinic, Ltd.:** Well-established, south suburban, physician-owned group seeking part/full-time ob/gyn and family practice physicians to work in our regular day clinic. We are also seeking physicians to work at our urgent care sites. Contact medical director at 952/985-8931, or write Quello Clinic, Ltd., 7801 East Bush Lake Road, Suite 300, Bloomington, MN 55439. (6/00-R)

---

**Fairview Health Services:** Practice opportunities in urban, suburban, and semirural locations. Moonlighting and part-time urgent care opportunities also available. Please contact Fairview Physician Recruitment and Retention at 612/672-2288, 800/842-6469, fax: 612/672-2986, e-mail: recruit1@fairview.org or visit our Web site at www.fairview.org/recruitment. (6/00-R)

---

**Olmsted Medical Center** is seeking BC/BE physicians in family medicine, emergency medicine, and dermatology to join our 75-physician multispecialty group. Great opportunity for well-trained physicians to join a family-friendly group in a dynamic, progressive practice. In addition to its main office and hospital in Rochester, the Olmsted Medical Center system includes 11 branch office locations in southeastern Minnesota. Excellent salary and benefits, including health benefits, malpractice, spending accounts, educational funds, profit sharing, 401(k)/403(b), and relocation assistance. Send CV to Lois Till-Tarara, Olmsted Medical Center, 1650 Fourth Street SE, Rochester, MN 55904; 507/287-2430. Fax: 507/285-8973. (*3/99-R)

---

**MDsearch** assists medical groups and hospitals in their recruiting efforts. For confidential information on opportunities in the Upper Midwest, send CV and/or call collect Mary Jo Cordes, MDsearch, P.O. Box 21507, St. Paul, MN 55121; 651/454-7291. Fax: 651/454-7277. (2/93-R)

---

**Medical Director:** For rehabilitation/physical therapy clinic in St. Paul. Opportunity to grow with practice. No on call or weekends. Call Midway Injury Management. 651/644-0210. (2-10/00)

---

**Falls Medical Search Seeks Physicians** for practice opportunities locally and nationally. To explore new practice options confidentially, send your CV or call Pat Falls, Falls Medical Search, 34 Forest Dale Road, Minneapolis, MN 55410; 612/922-0207 or 800/383-8916. (*5/92-R)

---

**The Minnesota Recruiter** works with Minnesota practices to staff their physician opportunities and with physicians seeking new opportunities. Through our nationwide affiliate offices, we can provide attractive opportunities in nearly all parts of the country. Access these opportunities online at www.mnrecruiter.com or contact us confidentially at 800/967-2711, or by fax at 320/587-7252. (6-1/01)

---


**Keeping Healthcare Close to Home**

Medcenter One Health Systems in Bismarck, North Dakota, is a non-profit corporation consisting of a 238-bed hospital, a large multi-specialty clinic, 21 rural clinics and 3 nursing homes.

*Opportunities include:*

- Gastroenterology
- Internal Medicine
- Orthopedic Surgery
- Pediatrics

Bismarck is the capital city of North Dakota, has low crime, great schools, good hunting and fishing, golfing, skiing, and is located on the Missouri River.

*Contact Sue Jacobson at 1-800-932-8758 x 8745*
*Medcenter One Health Systems*



PO Box 5525 • Bismarck, ND 58506.
Fax: 701-323-5800 • www.medcenterone.com
Email: sjacob@mohs.org.

**Medcenter One Health Systems**

# Wouldn't you like a LOW-COST employee benefit?




**MMBR** has partnered with **IBM Mid America Employees Federal Credit Union** — one of the largest and most successful credit unions in the state — specifically for the benefit of your medical practice.

- IBM Mid America is driven by a mission of providing **high-quality service** — 98% of its members say the credit union either meets or exceeds their service expectations.*
- Some experts estimate that credit union membership can save the average American family **$400 to $500** a year.
- The credit union emphasizes **high savings rates, low loan rates,** minimal fees and convenient access through a combination of branch offices and state-of-the-art technology.

*To find out how the valuable benefit of credit union membership can be offered to your employees at **no cost** to you, call MMBR at **1-800-298-6627** or **612/623-2860.***

## Are you interested in an employee benefit that:

- Adds **real value** to your benefits package?
- Can help increase **employee retention?**
- Requires **no investment** of your administrative time?
- Is **easy to implement,** with no hassle?

* 1999 Service Quality Survey

IBM **MID AMERICA** EMPLOYEES FEDERAL CREDIT UNION

**MMBR**

MINNESOTA MEDICAL BUSINESS RESOURCES
OWNED BY MMA & HMS

**www.mnmed.org/mmbr • e-mail: mmbr@mnmed.org**

**Weber Law Office:** Focusing on the professional and personal legal needs of the health professional. Former attorney for the Board of Medical Practice. Over six years with the Minnesota Attorney General's Office. Committed to the best legal outcome possible through diligence and resourcefulness. 612/296-8080; www.weber-law.com. (6-12/00)

**Full- or Part-time BC/BE Radiologist** to join 36-physician multispecialty group. Excellent salary/benefit package. No J-1 Visa. Contact James Matter, M.D., or Scott Swenson, M.D., 218/736-8000, 615 South Mill Street, Fergus Falls, MN 56537. EEO/AA (3-2/01)

**Ob/gyn, surgeon, BC/BE** to join progressive 40-physician multispecialty group practice. Rural setting with metropolitan practice style, 25 miles from Minneapolis. Group has excellent reputation and large geographical referral area. Recently expanded facility is adjacent to newly remodeled 110-bed hospital. Comprehensive benefit package with excellent remuneration. Interested physicians should contact Joseph E. Van Kirk, M.D., Lakeview Clinic, Ltd., 424 State Hwy 5 West, Waconia, MN 55387. 612/442-4461. AA/EOE (3-1/01)

**Urgent Care Physician:** HealthEast Care System is seeking physicians for part-time evening and weekend urgent care shifts at its South St. Paul location. Interested family practice, emergency medicine, or internal medicine physicians should contact Karen Karlinski, M.D., HealthEast Urgent Care, 724 19th Avenue North, South St. Paul, MN 55075, 651/232-6375. (10/00-R)

**Clinical Space Available for Subleasing** at Abbott Northwestern Medical Building, Central Medical Building (St. Paul), Maplewood Professional Building, and Oak Ridge Professional Building (Burnsville). For more information, please call 651/312-1543. (3-1/01)

**IHS Medical** looking for FT/PT family practitioner, internist, and PT/FT neurologist. Call Monday thru Friday, 651/644-0456. Ask for Rebecca Laws. (1-11/00)

Send your classified ads to *Minnesota Medicine* by e-mail: kocel@mnmed.org


Park Nicollet

**General Ophthalmologist**

Park Nicollet Clinic Department of Ophthalmology is seeking a BE/BC general Ophthalmologist to practice in southern and central suburban Minneapolis. Join 7 MDs including specialists in retina, pediatrics, neuro-ophthalmology , cornea, and oculoplastic and 11 ODs in a busy and well-established practice. State of the art refractive and ambulatory surgical centers. Fellowship training is an asset but not required.

Please send CV and letter of inquiry to:
**Missy Fisher, Manager Clinician Recruitment**
**Park Nicollet Health Services**
**3800 Park Nicollet Boulevard – 7N**
**Minneapolis, MN 55416**
**Fax (952) 993-2819**
**Email: fishem@parknicollet.com**

For more information call Missy Fisher at (952) 993-6025 or toll free (888) 437-5004.

*Park Nicollet Clinic is part of Park Nicollet Health Services, an integrated care system that includes Methodist Hospital.*

Caring For Our Community
Affinity

*Affinity Medical Group is an integrated health care organization providing quality care and services throughout our three hospitals and 17 clinic locations in East Central Wisconsin. Currently we are seeking BC/BE Physicians in the following specialties:*

- **Anesthesiology**
- **Dermatology**
- **Internal Medicine**
- **Oncology**
- **Orthopaedics**
- **Psychiatry**
- **Pediatrics**
- **Family Practice**
- **Hospitalist**
- **Radiology**
- **Surgery (with vascular training)**

The Fox Cities communities which include Appleton, Oshkosh and Neenah, offer a host of cultural opportunities and a chance to practice medicine in smaller settings that have everything big city medicine offers. Once here, we're sure you'll agree that these practice locations are some of the most attractive places to live in the Midwest.

For more information on Affinity Medical Group, please contact or send your CV with 3 letters of reference, to: Cookie Fielkow, Physician Recruitment, **800-722-9989,** e-mail: cfielkow@affinityhealth.org

Affinity Medical Group
A MEMBER OF AFFINITY HEALTH SYSTEM

**P.O. Box 8005 • Menasha, WI • 54952-8005**

# A Vehicle Buying and Leasing Program With Special Benefits

- One stop shopping by phone or fax
- Buy or lease
- Any make or model
- Car, truck or sport utility vehicles
- New or used
- Save time
- Save money
- Eliminate shopping frustration

Remember, whether you purchase or lease, MMBR Motor Services and Creative Leasing, Inc. will help you get the most vehicle at the best price. We'll even help you sell your old auto.

Use your money wisely. For personal attention and lease or purchase information on any vehicle, call 612/623-2860, or toll-free 800/298-MMBR.

MMBR Motor Services is a service of Minnesota Medical Business Resources, a physician-owned corporation of your medical association.

**New Vehicle Leases****

| | Make/Model | MSRP | Your Price* | 24 Mo | 36 Mo | 48 Mo |
|---|---|---|---|---|---|---|
| **Cars** | 2001 Ford Focus 4dr Sed. SE | $16,065 | **$15,645** | $357 | $299 | $266 |
| | 2001 Volkswagon New Beetles | $18,250 | **$17,750** | $335 | $291 | $269 |
| | 2001 Honda Accord LX, AT | $19,755 | **$18,146** | $403 | $334 | $293 |
| | 2001 Toyota Camry LE, AT | $21,280 | **$19,447** | $455 | $366 | $324 |
| | 2001 Subaru Outback Wagon 4dr | $24,390 | **$23,214** | $434 | $374 | $347 |
| **SUVs** | 2001 Chev Blazer LS, 4 dr, 4WD | $28,395 | **$26,033** | $517 | $415 | $438 |
| | 2001 Ford Explorer XLT, 4WD | $30,455 | **$27,939** | $662 | $533 | $466 |
| | 2001 Dodge Durango SLT, 4WD | $30,355 | **$27,958** | $573 | $485 | $437 |
| | 2001 Chev Tahoe LS, 4WD, | $35,576 | **$31,959** | $567 | $498 | $456 |
| | 2001 Chev Suburban LS, 4WD | $37,850 | **$34,157** | $571 | $518 | $473 |
| | 2001 Ford Expedition XLT, 4WD, 1/2 ton | $35,340 | **$31,365** | $646 | $538 | $481 |
| | 2001 Toyota 4 Runner SR5 V6 | $31,750 | **$30,157** | $652 | $525 | $461 |
| | 2001 Lexus R X 300, 4WD | $36,150 | **$35,650** | $743 | $589 | $520 |
| **Pickups** | 2001 Chev, 1/2 ton Extcab, LS, 4WD | $29,841 | **$26,525** | $499 | $448 | $388 |
| | 2001 Dodge 1/2 ton Quadcab, SLT, 4WD | $27,940 | **$25,000** | $488 | $426 | $378 |
| | 2000 Ford 1/2 ton Supercab, XLT, 4WD | $29,605 | **$26,197** | $598 | $493 | $419 |

MANY REBATES & LOW FINANCING AVAILABLE ON QUALIFIED VEHICLES— ALL FIGURES QUOTED ARE BEFORE ANY REBATE REDUCTIONS

Effective date 10/4/2000

* Sale price before tax, license, and license fees.

** All lease payments listed above are monthly lease payments before tax on factory ordered leases. These lease payments are based on a $0.00 cap reduction and 15,000 miles/year. The only moneys needed to start the above leases are first payment, security deposit, and license for the first year.







**MMBR**

**MOTOR SERVICES**

MINNESOTA MEDICAL BUSINESS RESOURCES OWNED BY MMA & HMS



*St. Cloud, Minnesota*—St. Cloud Hospital/Mayo Family Practice Residency Program, a successful, community-based, unopposed, 4-4-4 Family Practice Residency program sponsored by Mayo Graduate School of Medicine seeks a full-time BC physician/faculty member to join its experienced faculty. As a member of this team, your responsibilities will include resident supervision and direct patient care, including inpatient and outpatient. We offer a highly competitive salary commensurate with training and experience and benefits including relocation allowance, four weeks of paid vacation, and two weeks CME. This program emphasizes doctor-patient relationships, rural practice preparation, procedural training, obstetrical care, evidence-based medicine and an adult learner model. St. Cloud is a growing, family-oriented college town of 110,000 conveniently located between Minneapolis/St. Paul and prime Minnesota lake areas. Please contact George Schoephoerster, M.D., at 800/575-2982, fax CV, 320/240-3165, or e-mail: schoephoersterg@centracare.com

**✠ St.Cloud Hospital / Mayo Family Practice Residency**

## NOVEMBER 2000 INDEX TO ADVERTISERS


Acute Care, Inc. ..... 63
Affiliated Community Medical Centers ..... 41
Affinity Medical Group ..... 69
Allina Continuing Medical Education ..... 57
Aspen Medical Group ..... 19
Brainerd Medical Center ..... 41
Buffalo Clinic ..... 65
CentraCare Clinic ..... 54
Custom RX Compounding ..... 42
Emergency Practice Associates ..... 12
Global Holidays ..... 53
Hazelden Foundation ..... 13
HealthPartners CME ..... 13
Management Services by Choice ..... 61
Mankato Clinic ..... 71
Medcenter One Health Systems ..... 67
Medical Protective Co. ..... 5
MeritCare ..... 50
Meritcare/Critical Care Services ..... 19
MICOA Mutual Insurance Company of America ..... 9
MMA Membership ..... 72
Midwest Medical Insurance Company ..... 27, Cover 4
MMBR ..... 58, 64, 66, 68, 70
Multicare Associates of the Twin Cities ..... 50
North Memorial Healthcare ..... 42
Northwest Family Physicians ..... 57
Owatonna Clinic-Mayo Health Systems ..... 19
Park Nicollet ..... 42, 69
Regions Hospital ..... Cover 3
St. Cloud Hospital Mayo FP Residency ..... 71
St. Cloud Medical Group ..... 57
St. Vincent Hospital/Prevea Clinic ..... 63
Suburban Imaging ..... 3
University of Minnesota Department of Medicine ..... 50
Wally McCarthy Cadillac ..... Cover 2
Whitesell Medical Locums, Ltd. ..... 32
Winona Clinic, Ltd. ..... 50


## 80 years and Still Growing.

*We're looking for BC/BE physicians for the following positions:*

**Internal Medicine/Family Practice**—We have multiple opportunities available in our internal medicine and family practice departments. Mankato Clinic is a multi-specialty group practice with 75+ providers and a service area population of over 250,000. Our scenic riverside community has big city amenities, shopping and restaurants all without the traffic hassles.

---

**Radiology**—Exceptional opportunity to join our Radiology Department. Brand new volume acquisition multi-detector spiral CT scanner necessitates expanding this well established department. This opportunity also includes reading MRI from the region's two newest open MRI. Desirable call schedule provides time to enjoy life in this scenic river valley community.

---

We offer a guaranteed first year salary with incentive pay plan. Our full range of benefits includes a generous retirement plan and liberal time-off policy.

**For more information call Dr. Byron C. McGregor, Medical Director at 507-389-8548 or Dennis Davito, Director Physician Recruitment, 507-389-8654 or send CV.**

**Mankato Clinic**
**1230 East Main Street**
**Mankato, MN 56002-8674**
**FAX: 507-388-3401**

# *Minnesota Medicine*

AN EXCELLENT ADVERTISING INVESTMENT

Target marketing pays real dividends with your space advertising in *Minnesota Medicine,* the official journal of the Minnesota Medical Association.

Delivered directly to offices, hospitals, and clinics, *Minnesota Medicine* reaches your key clients and prospects in their business setting.

*For complete advertising information contact:*

Michele Holzwarth
Minnesota Medicine
3433 Broadway Street NE, Suite 300
Minneapolis, Minnesota 55413
612/623-2880
800/DIAL-MMA (342-5662)

**There could be something missing in the Minnesota Medical Association**

# You

**Now is the time to renew your membership for 2001**

Renewal materials for your MMA membership will be arriving soon.

Renew your membership **as soon as possible** to ensure continuity of benefits and services.

The MMA membership department will be glad to assist you in renewing your 2001 membership if you have questions.

Call **800/DIAL MMA** or **612/378-1875** to renew your membership by phone or to have renewal materials faxed to you.

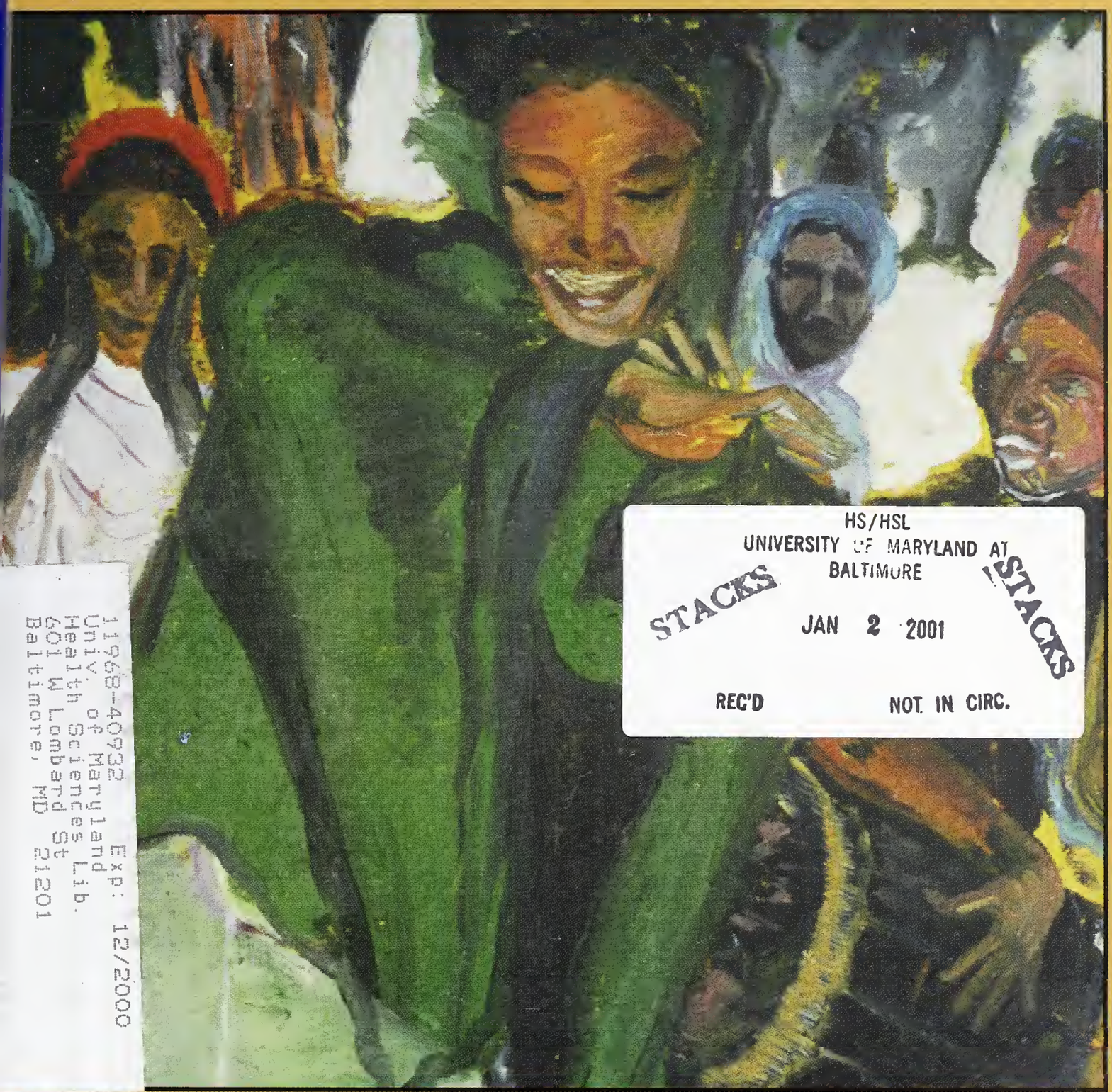
MMA
MINNESOTA MEDICAL ASSOCIATION
MEDICINE'S VOICE IN MINNESOTA

**Renew today.**

Surviving Medicare audits • Medicare in the wake of the Balanced Budget Act

# Minnesota Medicine

JOURNAL OF CLINICAL AND HEALTH AFFAIRS



HS/HSL
UNIVERSITY OF MARYLAND AT
BALTIMORE
STACKS
JAN 2 2001
STACKS
REC'D
NOT IN CIRC.

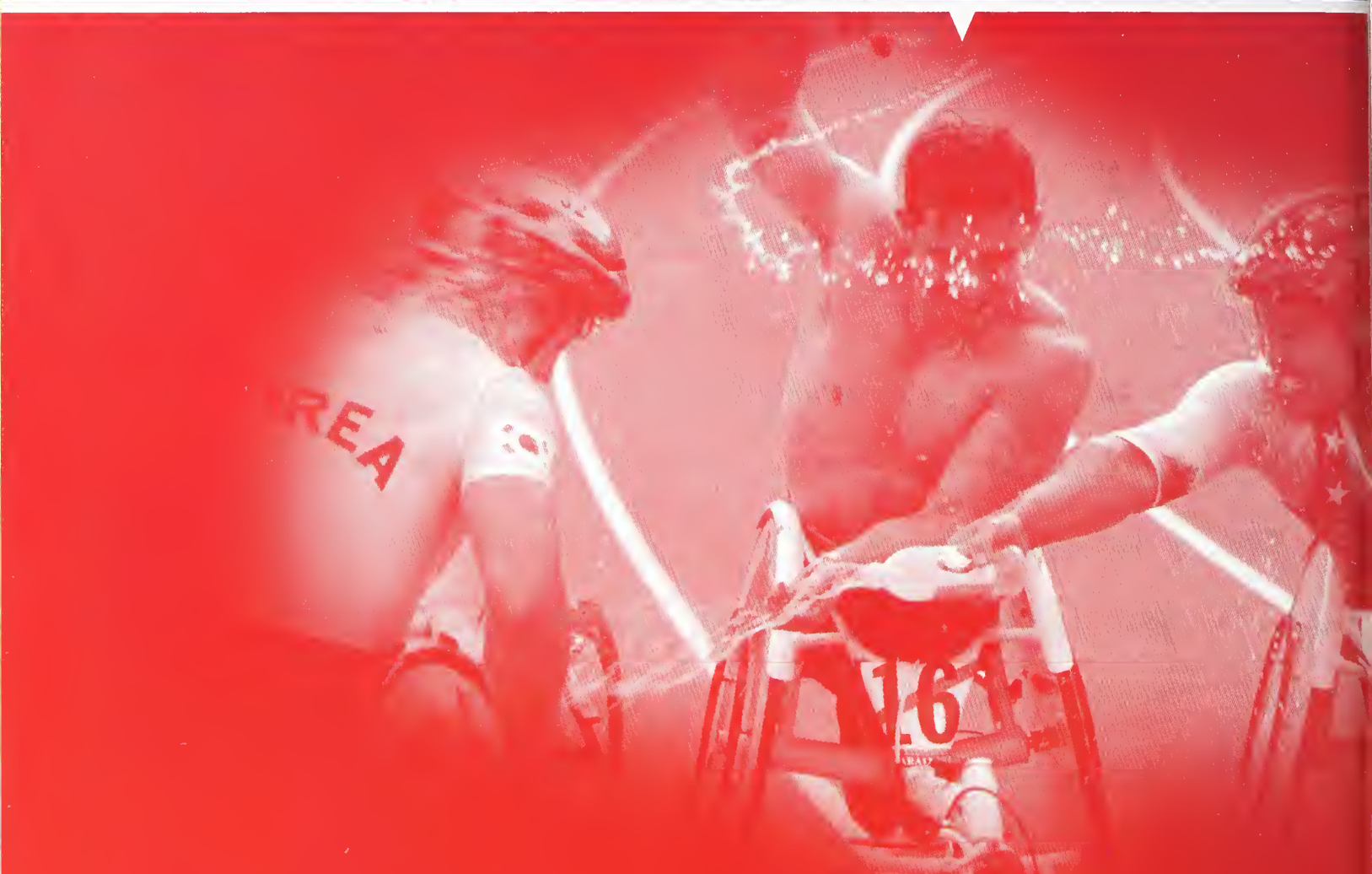
11968-40932 Exp: 12/2000
Univ. of Maryland
Health Sciences Lib.
601 W Lombard St
Baltimore, MD 21201

DECEMBER 2000

## Embracing Diversity

Minnesota physicians have much to learn about—and from—their Somali patients.

# DETERMINATION HAS A WAY OF DISGUISING ITSELF AS A MIRACL



Start by restoring confidence. Foster strength. And apply aggressive programs of therapy that promote independence through realistic and measurable goals. It's no miracle. It's how Bethesda helps reinvent lives.

**BETHESDA REHABILITATION HOSPITAL**
800-566-2720
St. Paul, MN

HealthEast Care System
*Dedicated to Caring*
www.healtheast.org

GERIATRIC MEDICAL/BEHAVIORAL · BRAIN INJURY · PROGRESSIVE RESPIRATORY CARE · REHABILITATION

# Minnesota Medicine

Published monthly by the Minnesota Medical Association



COVER

*"Women Selling Milk," by Aziz Osman, a Somali artist whose work depicts the beauty and traditions of his native country. He has lived in the Twin Cities since 1991.*

DEPARTMENTS

2 ..... Editor's Note

33 ..... MMA News & Views

53 ..... CME in Minnesota

56 ..... Classified Ads

58 ..... Index to Advertisers

59 ..... 2000 Index

MMA EXTRA

**Getting By with a Little Help from Their Friends,** by Lisa Moshfeghi, page 50.

*The MMA's Minnesota Physicians Foundation Student Loans Program helps future physicians get through medical school.*

FACE TO FACE

6 **Worldly-Wise** ..... Carmen Peota
*Minnesota's new state epidemiologist, Harry F. Hull, M.D., has tracked and fought disease around the world.*

EDITORIALS

10 **Bridging the Multicultural Gap** ..... Juan M. Bowen, M.D.
*Physicians find rewards in overcoming cultural barriers in the medical setting.*

12 **Cross-Cultural Considerations in Health Care: One Hospital Responds** ..... Cheryl Galbraith, R.N.

PERSPECTIVES

14 **After Hours** ..... Lucia Wilkes Smith
*Reams of discarded medical journals and a brief conversation leave this writer overwhelmed by a sense of both abundance and waste.*

COVER STORY

16 **Embracing Diversity** ..... Patricia Ohmans, M.P.H.
*Minnesota physicians have much to learn about—and from—their Somali patients.*

CLINICAL & HEALTH AFFAIRS

25 **Enteric Parasites in East African Immigrants: Symptoms and Duration of U.S. Residence Are Not Predictive** ..... William J. Sachs, M.D., Richard Adair, M.D., and Varvara Kirchner

MEDICINE LAW & POLICY

29 **Understanding and Surviving Medicare Audits** ..... David Glaser, J.D.
*Physicians should appeal Medicare audits, as many are based on flawed legal practices, and evidence indicates that capitulation only increases the chance for a future review.*

SPECIAL REPORT

42 **The Impact of the 1997 Balanced Budget Act on Medicare** ..... Janet Silversmith, M.A.
*For the moment, the Balanced Budget Act of 1997 and its refinement in 1999 have left Medicare fiscally sound, but beneficiaries and providers alike have experienced some hardship and await future Congressional action.*

JUST WRITE

72 **Revision: Time to Take Another Look** ..... James Kaufmann, Ph.D.
*Here's where the real excitement of writing occurs—but seldom without pain.*

# Medicare Needs Another Upgrade

Medicare reminds me of my computer. My PC is helpful, and I'm convinced I can't live without it. But it never works exactly like it is supposed to, and it takes constant fiddling to keep it working, which may bankrupt me. As Congress and our new president leave behind the sweet promises of the campaign, they will have to face unsavory decisions that will determine whether Medicare can become a well-functioning machine that supplies Americans with American-style health care without bankrupting the whole medical care system or some of its parts.



*"Cynics would claim that Washington's strategy for Medicare has been to pay less and do less."*

The current Medicare structure is an amalgam of experiments, missteps, and adjustments made since Medicare's 1965 inception. DRGs, dialysis coverage, PROs, RBRVS, Medicare HMOs, PSOs, and fraud oversight have expanded coverage, policed quality, and channeled patients into managed care. Reacting to apocalyptic predictions of Medicare insolvency and to "60 Minutes"-like exposés of provider waste, fraud, or incompetence, those tinkering with Medicare have attempted to save money or improve quality. Reimbursement to hospitals and physicians has been chopped, shaved, or withheld. PRO auditors and HCFA fraud squads have roamed the medical landscape. Cynics would claim that Washington's strategy for Medicare has been to pay less and do less.

Some of that has changed. The customary annual GPA x 2 rise in Medicare expenditures fell to a 1.5 percent increase in 1998 and actually dropped to -1 percent in 1999. The Balanced Budget Act of 1997, which was supposed to save Medicare more than $100 billion over five years, will likely trim close to $230 billion (see this month's Special Report, page 42). The traditional federal deficit became a surplus. And political candidates started to run for office. Suddenly, the talk about expense and quality was muted. Most of the clamor focused on expanded benefits, and the loudest uproar centered on prescription drug coverage. Both the Bush and Gore campaigns were hawking prescription benefits for Medicare recipients that would cost $158 billion to $253 billion over 10 years. The proposed new add-on for the Medicare machine is paying for drugs.

Clearly, drug coverage is needed. All practicing physicians know patients who pay $500 per month for prescription drugs, a cost unaffordable for most patients and unconscionable for the United States. The problem is that the prescription drug campaign rhetoric steers attention away from the fact that Medicare's disk drive is knocking and its RAM is failing. Mammogram centers are closing because they lose money on every Medicare mammogram. As reported in a November *Star Tribune* story, hospitals everywhere are straining to recoup 6- to 8-figure losses resulting from their care of Medicare patients. Each month physicians learn a new HCFA rule that makes some test medically unnecessary, some diagnosis unacceptable for coding, and some hospital visit unreimbursable. Although the trend is not as prevalent in Minnesota, people in many areas of the country are unable to find a doctor who will accept new Medicare patients because each Medicare patient encounter generates a loss. This PC is buggy and the screen is flickering while Washington technicians are trying to decide whether to add a fancy new sound card.

I'm neither a computer geek nor a policy wonk. I don't have the perfect design for Medicare. But I think some straightforward principles need to be followed: Define what the machine is supposed to do. Don't try to fix the processor with a pipe wrench. Figure out what the component parts—patients, physicians, hospitals, therapists—need and can give. Determine how much the market—the American people—is willing to pay. And remember: The failure of a single component can make the system crash.

*–Charles R. Meyer, M.D., Editor-in-Chief*

*To respond to this column, write to Dr. Meyer at cmeyer1@fairview.org.*

North Memorial Health Care®

*An Organization of Health Care Professionals*

*North Memorial is an independent, full-service facility located in the northwest Twin Cities with more than 700 physicians in more than 40 specialties. We are known as the trauma center in the region with other notable programs including the Hubert H. Humphrey Cancer Center, North Heart Center, North Rehabilitation Center, and the Women's and Children's Center. We also strongly promote physician practice opportunities within our associated clinics, including those that are independently owned, joint ventures and hospital owned. Which means you can choose from large or small and multi- or single-specialty practice options in metro, suburban, or rural locations. North Memorial offers very competitive salaries and excellent fringe benefits. Sounds like the perfect job, doesn't it?*

*Positions now available for BE/BC physicians in:*

- Family Practice
- OB/GYN
- Internal Medicine
- Gastroenterology
- Hematology/Oncology
- Emergency Medicine
- Pediatrics
- Urgent Care
- Dermatology
- Hospitalist
- Intensivist
- Plastic Surgery

For consideration to be a part of our team please mail, fax, or e-mail cover letter and C.V. to:

Mark A. Peterson, Physician Recruiter
North Memorial Health Care
3300 Oakdale Avenue North
Robbinsdale, MN 55422
Phone: (800) 275-4750 or (763) 520-1336
Fax: (763) 520-5997
E-mail: mark.peterson@northmemorial.com

***FEDERAL BUREAU OF PRISONS***

*The Federal Medical Center (FMC) in Rochester, MN is seeking a full-time psychiatrist for our multidisciplinary group practice. The FMC is a JCAHO-accredited medical and psychiatric referral facility for the Federal Bureau of Prisons.*

*Unique Benefits: a true 40-hour work week, early retirement, tax-deferred retirement savings plan, 10 paid holidays, a reasonable on-call schedule, and forensic experience.*

*Contact: Lisa Roach*
*507-287-0674 ext. 289*
*e mail: lxroach@bop.gov*

LOOKING FOR LOCUM TENENS?

LOOK FOR THE FRIENDLY DOCTOR



Whitesell
Medical Locums, Ltd.

Benefits for the Hospital/Clinic:
- Highly qualified physicians that are B.E./B.C.
- Fill your positions during illness, vacation and understaffing.
- Prevent loss of revenue.
- We handle all administrative details.
- Competitive rates

Benefits for the Physician:
- Experience a complete range of practice styles.
- Fully paid malpractice insurance
- Explore options or new services before making permanent decisions.
- A chance for senior physicians who no longer desire the responsibility of running a practice to stay clinically active.

Metro 763-682-5906
Toll Free 800-876-7171
Fax 763-684-0243
Web www.mnlocums.com

It keeps more than memories alive.

American Heart Association℠
*Fighting Heart Disease and Stroke*

AMERICAN HEART ASSOCIATION MEMORIALS & TRIBUTES℠

1-800-AHA-USA1

This space provided as a public service.
©1994, American Heart Association

# Minnesota Medicine

Published monthly by the Minnesota Medical Association

*Owner and Publisher*
Minnesota Medical Association

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Managing Editor*
Meredith McNab

*Associate Editors*
Lisa Moshfeghi
Carmen Peota

*Publications Assistant*
Katie Ocel

*MMA News & Views Editor*
Lorrie Holmgren

*MMA News & Views Writer*
Cynthia Lehman

*Graphic Designers*
Barbara Gerbig
Katie Ocel

Send manuscripts, subscriptions, and other material for consideration to *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/378-1875. E-mail: mm@mnmed.org The editors reserve the right to reject editorial, scientific, or advertising material submitted for publication in *Minnesota Medicine*. The views expressed in this journal do not necessarily represent those of the Minnesota Medical Association, its editors, or any of its constituents. Annual subscription for 2001–$45. Single copies–$5. Canadian–$80. Foreign–$80.

***To Advertise:*** Contact Michele Holzwarth, *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761; 612/623-2880 or 800/DIAL MMA (342-5662).



**Advisory Committee**

*Editor-in-Chief*
Charles R. Meyer, M.D.

*Advisory Committee*
Charles R. Meyer, M.D.
Edmund C. Burke, M.D.
Richard C. Lussky, M.D.
Lynne Ogawa, M.D.
Paul S. Sanders, M.D.
Leif I. Solberg, M.D.
Barbara P. Yawn, M.D.
Meredith McNab, staff

*Editors Emeritus*
Edmund C. Burke, M.D.
1991-1993

Richard L. Reece, M.D.
1975-1990

Reuben Berman, M.D.
1971-1974

Carl O. Rice, M.D.
1961-1970



**Copyright & Post Office Entry**

*Minnesota Medicine* (ISSN 0026-556X) is published on the fifth of each month by the Minnesota Medical Association, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761, copyright 2000. Permission to reproduce editorial material in this magazine must be obtained from *Minnesota Medicine*. Periodicals postage paid at Minneapolis, Minnesota, and at additional mailing offices. POSTMASTER, send address changes to *Minnesota Medicine*, 3433 Broadway Street NE, Suite 300, Minneapolis, MN 55413-1761. (USPS 3519000.)



MINNESOTA MEDICAL ASSOCIATION

**2000–2001 Officers**

*President*
Blanton Bessinger, M.D.

*President-Elect*
Peter C. Amadio, M.D.

*Chair, Board of Trustees*
Robert K. Meiches, M.D.

*Vice President*
David D. Luehr, M.D.

*Secretary*
David L. Estrin, M.D.

*Treasurer*
Michael B. Ainslie, M.D.

*Speaker of the House*
Gary D. Hanovich, M.D.

*Vice Speaker of the House*
Rebecca Jean Hafner, M.D.

*Past President*
John M. Van Etta, M.D.

*Chief Executive Officer*
Paul S. Sanders, M.D.

**MMA Senior Staff**

*Director of Communications*
Lorrie Holmgren

*Chief Financial Officer*
George C. Lohmer Jr.

*Director of State and Federal Legislation*
David Renner

*Director of Health Law*
Christina F. Rich, J.D.

*Director of Health Economics and Policy Analysis*
Janet Silversmith

*Director of Executive Office*
Karen A. Tourdot

**Alliance**

*President*
Diane Gayes

*President-Elect*
Pam Schmidt

**Board of Trustees**

*N.W. District*
Jerry P. Rogers, M.D.

*N.E. District*
Stephen L. Hadley, M.D.
Charles R. Helleloid, M.D.

*N. Central District*
James J. Dehen Jr., M.D.
George Schoephoerster, M.D.

*West Metro*
Lee Beecher, M.D.
Karen K. Dickson, M.D.
John W. Larsen, M.D.
Robert K. Meiches, M.D.
Henry T. Smith, M.D.

*East Metro*
Thomas Dunkel, M.D.
Lyle Swenson, M.D.

*S.W. District*
Terence P. Cahill, M.D.
Elton G. Wing, M.D.

*S.E. District*
G. Richard Geier Jr., M.D.
Daniel E. Maddox, M.D.
Kimberly McKeon, M.D.

*Resident Member*
Melissa Merideth, M.D.

*Medical Student*
Sam Reck

**AMA**

*AMA Delegates*
Robert D. Christensen, M.D.
Frank J. Indihar, M.D.
Carolyn J. McKay, M.D.
Lyle Munneke, M.D.
Audrey M. Nelson, M.D., *Chair*
Thomas L. Peyla, M.D.
Andrew J.K. Smith, M.D.

*AMA Alternates*
Raymond G. Christensen, M.D.
Kenneth W. Crabb, M.D.
Anthony C. Jaspers, M.D.
Paul C. Matson, M.D.
Sally Trippel, M.D.
John M. Van Etta, M.D.
Benjamin H. Whitten, M.D.



**MMA Address**

Minnesota Medical Association
3433 Broadway Street NE, Suite 300
Minneapolis, MN 55413-1761

Phone: 612/378-1875 or 800 DIAL MMA (342-5662)

Fax: 612/378-3875

E-mail: mma@mnmed.org

Web site: www.mnmed.org

Joint Replacement & Adult Reconstructive Surgery

The Gustilo-Kyle Joint Replacement & Adult Reconstructive Surgery Group

is proud to announce the addition of

**Thomas E. Nelson, M.D.**

to their orthopaedic practice

**Personal Data**
Date of Birth 7/31/59
Place of Birth St. Paul, Minnesota
Married with three children

**Undergraduate**
Bachelor of Chemical Engineering
Institute of Technology,
University of Minnesota 1981

**Medical School**
Medical Doctor Degree
University of Minnesota
Medical School 1986

**Residency**
Orthopaedic Residency
Univ. of Minnesota Hospital and Clinic
Department of Orthopaedic Surgery
1987-1991

**Fellowship**
Mayo Clinic,
Orthopaedic Oncology and
Adult Reconstructive Surgery
1991-1992

*Dr. Nelson, after six years, has left a thriving orthopaedic practice in Marshfield, Wisconsin to join us here in Minneapolis. He has previously served as Medical Director in Florida, as well as, being involved in teaching positions in both Florida and Minnesota. He specializes in joint replacement and oncology.*

*We welcome him with enthusiasm, confident that his knowledge and expertise will be a benefit to his colleagues and his patients.*


# Make a mental image with 2 new imaging centers.








**Suburban Imaging - Maple Grove**

Arbor Lakes Medical, Suite 310
12000 Elm Creek Boulevard
Maple Grove, Minnesota 55369
763 416-7888

**Suburban Imaging - Edina Consulting Center**

5203 Vernon Avenue
Edina, Minnesota 55436
952 848-0104

**MRI • CT • Ultrasound**

Suburban imaging
A service of Suburban Radiologic Consultants, Ltd.

**Coon Rapids • Maple Grove • Edina Consulting Center**
**Southdale • Centennial Lakes • Burnsville**

Suburban Imaging is a service of Suburban Radiologic Consultants, Ltd. © 2000

# WORLDLY-WISE



Minnesota's new state epidemiologist, Harry F. Hull, M.D., has tracked and fought disease around the world.

"Who was the first person to climb Mount Everest?" Minnesota's new state epidemiologist Harry F. Hull, M.D., asks a crowd of Ramsey County health care workers. "Sir Edmund Hillary," someone calls out. "Tenzing Norgay," says another. "I didn't ask who reached the summit first," Hull answers back, ready to make a point he's made many times before. "I asked, 'Who was the first to climb on the mountain?' " Hull pauses, giving his audience a moment to collectively conclude: We remember those who reached the top.

For Hull, the mountain has been polio eradication, an

PHOTOGRAPH BY JOHN NOLTN

*Switzerland, Afghanistan, Gambia, Bangladesh, Democratic Republic of Co*

By Carmen Peota

effort to which he has devoted himself for the last 10 years as head of the World Health Organization's (WHO) fight against a disease long gone from this country. Splitting his time between Geneva, Switzerland, and airplanes, Hull has tracked the virus around the globe, pursuing a WHO agenda set in 1988 to totally destroy wild polio viruses by 2000. With less than a month left, Hull knows the target date won't be met, that success is within reach, but elusive.

"If there's still one case anywhere on the face of the world, you've failed," he says as he flashes a slide of a man and burro carrying vaccine to a remote mountainside in Afghanistan, where polio is still present. "The disease will come back, and it will come back with a vengeance."

A high standard, to be sure, but Hull can hardly be considered a failure. Thanks to his efforts, at least 3 million children are alive and walking today who otherwise wouldn't be. An impressive accomplishment for a pediatrician who hasn't practiced in a clinical setting since he left his residency at the University of Washington to pursue epidemiology.

The holder of Minnesota's most visible public health position has worldwide stature as an expert on bubonic plague and measles, as well as polio. In addition to his WHO tenure, Hull has been New Mexico's state epidemiologist and worked as a medical epidemiologist for the Centers for Disease Control and Prevention programs in West Africa.

Hull has worked both in the field as well as the office. He has tracked smallpox in the villages of Bangladesh and measles in Gambia. He's worked with U.N. Secretary General Kofi Anan to negotiate cease-fires among fighting factions in the Democratic Republic of Congo and among troops from Rwanda. He has administered oral polio vaccines one child at a time and organized mass immunization campaigns, including one that reached 134 million children in one day.

Trained and board certified in pediatrics, Hull has a heart for kids that has shaped his epidemiological career and made him a passionate advocate for immunizations. His work on polio was aimed at children age 5 and younger, and he sees epidemiology as a natural extension of pediatrics in that both fields focus on preventive medicine.

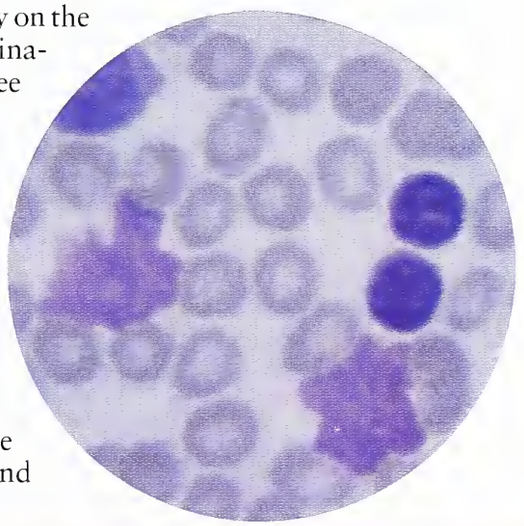
Pediatrics actually launched Hull's career in epidemiology. While a resident at the University of Arizona, he studied with Jacob John, M.D., an Indian physician who sparked his interest in international health issues and preventive medicine and urged him to travel to India. About the same time, the Arizona Legislature cut two residency positions, and Hull volunteered to quit the program. Although the India trip failed to materialize, Hull took a job with the CDC's Epidemic Intelligence Service and made his way to Bangladesh, where he participated in the final stages of the smallpox eradication program.

He eventually returned to the United States and decided to finish his pediatric residency at the University of Washington in Seattle. While caring for an infant who had incurred a million-dollar hospital bill, he became conscious of the cost-effectiveness of preventing illness. "Once you understand prevention," Hull says, "you feel many health expenditures could be more wisely spent in prevention programs."

Attracted by international travel and what he says were more interesting opportunities in disease prevention, he took a CDC position in West Africa. That led to a medical epidemiology job in New Mexico and eventually the state epidemiologist position. When the WHO polio eradication program came along, Hull knew he wanted to be part of it. He had been "very moved" by his work on smallpox and believed that polio could and should be eliminated. The disease had touched his family when his mother acquired it in 1952. Hospitalized with a mild form and afraid of dying, she vowed to raise her children to go out and change the world, if she lived.

In his 10 years with the WHO, Hull helped change the world. He oversaw a 95 percent reduction in polio, and the disease is no longer a worldwide threat. He witnessed the devastation of the disease, but also the benefit of the vaccine. And it's the benefit Hull now wants others to see as well.

One of his greatest concerns is that because immunization programs have been so successful, people no longer recall the illnesses themselves and focus only on the downsides of vaccinations. "Parents can see this [vaccinations] as a burden, as government interference. So there's a backlash." The risks, he insists, are minuscule.



So Hull continues to talk about polio, both as an illustration of the efficacy of vaccines and

*nda, India, Sierra Leone, Philippines, China, Kenya, Pakistan, Egypt, Russia*

### *Dr. Harry F. Hull at a Glance*

| | |
|---|---|
| *Title:* | *State epidemiologist and director, Infectious Disease Prevention and Control Division, Minnesota Department of Health* |
| *Age:* | *51* |
| *Education:* | *B.A., 1970, and M.D., 1973, Johns Hopkins University; Pediatric residencies, universities of Arizona and Washington* |
| *Family:* | *Wife, Suzi Henrichs; children, Jonathan, 19, freshman at Haverford College; Audrey, 15, and Michaela, 13, students in Highland Park schools.* |

as a way to introduce himself to his new state. It's one of the oldest documented human afflictions, he tells each audience, but it's known best for its recent history. He flashes slides of a 1950s hospital ward filled with iron lungs and a photo of F.D.R. He recounts closed swimming pools, panic-stricken parents, and Sabin Sundays, when children lined up to receive sugar cubes laced with oral polio vaccine. Then he shows a photo of a recent polio victim—a child from Kenya—and explains that in one of 200 infections, polio affects the nervous system, causing sudden paralysis. "It's like having a motor with wires cut." The paralysis is permanent. There's no treatment, only support and therapy. But in much of the world, there's no therapy for kids.

For most Americans, polio seems as obsolete as Studebakers and saddle shoes. But Hull reminds us that the disease, and others equally threatening, are only an airplane ride away. Vaccinations, he insists, are necessary.

Although Hull is stepping from the world to the state health arena, he is enthusiastic about the possibilities of his new position. Hull knows he has inherited a department with an international reputation, particularly in the area of foodborne disease. He cites the state's excellent public health system, laboratory and funding resources, research activities, and disease surveillance systems. "It all builds on itself," he says, "and it makes the work interesting."

And Hull wants to make his own mark on Minnesota health. Focusing on his primary interest, he wants to see the state establish an immunization registry that includes even the hardest-to-reach kids, and wants to help prepare the public for expected new vaccines against AIDS, human papilloma virus, and hepatitis. He believes other threats, such as bioterrorism, deserve attention. And he is concerned about disease surveillance. "I think smaller and larger epidemics are happening all the time," he says. "We have to be aware of them.

"The logical thing for me to have done was to go back to Atlanta," he says. "This job offers a lot more independence, responsibility, and unique challenges. It's a pretty exciting place to work."

Hull is challenged by epidemiology itself. Epidemiologists have to have the ability to think on their feet, he says, handle intense situations, move quickly, and know what's an epidemic and what's not. The position requires a mix of analytic, interpersonal, and media skills.

Hull describes himself as a team-oriented leader who is fair—"not the worst and not the best"—at delegating responsibility and interested in promoting collaboration as much as possible. He enjoys public speaking and tending to relationships—with physicians and other public health officials. "It's like a marriage," he says. "You always have to put energy into it."

Hull is upbeat about more than the health system in Minnesota. "I think [Minnesotans] underrate themselves," says Hull, who likes both the cultural and outdoor activities available here, although he wishes the state had mountains. A guitar player, he's interested in the area's music scene. He's had a career; he wants a life, too.

After 10 years of jet travel, Hull is enjoying such simple pleasures as riding a bicycle to work and taking a weekly guitar lesson. He plans to cross-country ski this winter. He has settled in the Highland Park neighborhood with his wife, Suzi Henrichs, a nurse practitioner, and their three children Jonathan, 19, Audrey, 15, and Michaela, 13.

Hull says he is asked all the time how it feels to follow in the footsteps of former state epidemiologist Michael Osterholm. "I'm 6'4," he jokes, "and he was 5'10". He has big feet, but mine are bigger."

This is not the first time Hull has succeeded an almost legendary figure. At New Mexico, he followed the highly respected Jonathan Mann, M.D., an international AIDS policy expert and human rights advocate killed in a 1998 plane crash. "I found that when I tried to be Jonathan Mann, I failed miserably. When I was Harry Hull, I did fine."

Hull says he has a personality very different from Osterholm's and different interests. "He [Osterholm] is a great person, but competing with him is not a productive approach." And Hull feels he has a record of accomplishment that stands on its own. After all, he has climbed a mountain. MM

*Carmen Peota is an associate editor at* Minnesota Medicine.

***polio, measles, bubonic plague, smallpox, foodborne diseases, AIDS, bioterrorism, hepa***

SELECTION & SAVINGS

# THE POWER OF &

THE FUSION OF DESIGN & TECHNOLOGY




SEVILLE



DEVILLE

**THERE ARE MANY REASONS WHY WE ARE NUMBER ONE IN SALES FOR THE NINTH CONSECUTIVE YEAR.**

**TEST DRIVE A NEW CADILLAC TODAY!**

## Wally McCarthy's Cadillac

ON HIGHWAY 36, JUST WEST OF ROSEDALE • www.mccarthyauto.com • 651.636.6060

---

# // NOW THERE'S A HUMMER DEALER IN MINNESOTA. IF YOU COME HERE FIRST, YOU CAN GO ANYWHERE YOU WANT TO.



**IN STOCK:**

1 NEW 1999 WAGON
1 NEW 2000 HARD TOP
3 NEW 2000 OPEN TOPS
10 NEW 2000 WAGONS
1 USED 1999 OPEN TOP
1 USED 1995 TWO MAN WITH UTILITY BOX

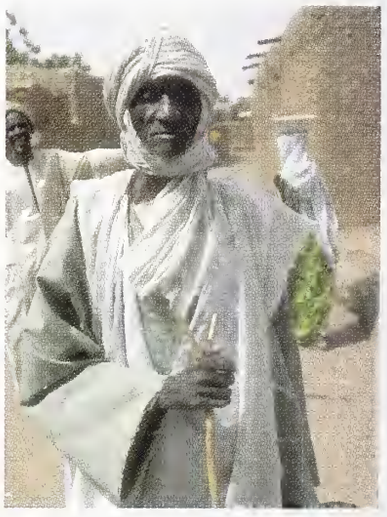
## Wally McCarthy's HUMMER®

ON HIGHWAY 36, JUST WEST OF ROSEDALE • www.mccarthyauto.com • 651.636.6060

# BRIDGING THE MI

Efforts to overcome cultural and communication barriers lead to a more meaningful patient-physician relationship, which may ultimately enhance overall quality of care and patient outcome.





A middle-aged Cambodian woman visits her doctor with a minor medical problem. After addressing the acute need, the doctor advises a preventive examination. The patient agrees but never returns for her scheduled appointment. Another day, a young Somali man is found to have advanced rheumatic valvular disease. He has few symptoms and does not seem to understand the recommendation to have elective cardiac valve replacement. Attempts to contact him by phone and letter fail, and he is lost to follow-up. In both cases, the treating physician is left feeling that care has failed because of cultural and communication barriers.

Experiences like these leave physicians with many questions. What is the best way to communicate with someone from a different cultural background? How do cultural beliefs about illness and healing change the physician-patient relationship? Do we need to change how we relate to the patient's family and community? Is it better to tailor our message to each cultural group, or should our patients adapt more to our medical culture?

In the past decade, Minnesota's immigrants and racial and ethnic minority populations have grown faster than the general population. Since 1990, the African-American population has increased by 53.7 percent and the Hispanic population by 70.5 percent. The state's total population growth was 8.8 percent during the same time period.[1] Refugees seeking a new life in Minnesota include Southeast Asians who immigrated in the 1970s and 1980s and more recent groups from Africa, the Balkan states, and other of the world's troubled areas. Minnesota's Somali population consists of at least 8,000 people and perhaps as many 40,000 and represents more than half of all Somalis living in the United States.

The care of minority and immigrant patients is all too

By Juan M. Bowen, M.D.

# TICULTURAL GAP



You win a person's mind when you speak a language they understand. You win a person's heart when you speak to them in their language.

–Nelson Mandela



often complicated by prior inadequate care and by financial, cultural, and language barriers. Refugees may require treatment for parasitic infections, hepatitis, HIV, tuberculosis, and other disorders more common in the developing world. Despite these challenges, physicians can find caring for those who are from a different cultural background deeply satisfying. The most capable of these physicians have usually developed new clinical skills in cultural competence.

We physicians begin to gain cultural competence by examining the ways in which our own beliefs, values, and attitudes shape our professional behavior. We then add to this insight by acquiring knowledge and understanding of how the same forces affect our patients. Once we appreciate the cultural context in which our patients live, we may care for them more effectively. The cultural competence literature includes examples of how medical care can fail when clinicians and patients have not communicated about crucial differences in beliefs about illness causation and treatment.[2] Our most important first step as physicians is to be receptive to learning the basics of intercultural understanding and the core characteristics about the cultural groups we are most likely to serve.

Fortunately, there are many new resources for busy practitioners seeking to improve their cultural competence. A good starting place is the AMA Cultural Competence Initiative Web site,[3] which includes the 460-page AMA Cultural Competence Compendium, an encyclopedic source of relevant information. Several books provide both inspiration and practical knowledge.[4-7] The Office of Minority Health in the U.S. Department of Human Services has published a set of recommended national standards for culturally competent care.[8] Other electronic sources of information include several helpful

Web sites.[9-11] In addition, several centers now specialize in the study of multicultural health issues. Experts from these centers publish educational materials and offer seminars for health professionals. The Center for Cross-Cultural Health, directed by Okokon O. Udo, is a Twin Cities–based organization that provides these services in our state (612/379-3573).[12]

The MMA is currently taking steps to help Minnesota physicians who want to care for their immigrant and minority patients more effectively. Through its Committee on Minority Affairs, the MMA is offering a series of seminars together with the Center for Cross-Cultural Health. Two sessions introducing general concepts of cultural competence were offered in October in the Twin Cities and Rochester. Two more in January will focus on the needs of Somali patients, and future sessions are also planned (see sidebar in related story, page 16).

The care of patients from diverse backgrounds will continue to test physicians' cultural competence skills. Now is the time for physicians to learn to relate to all their patients, not just those who have similar backgrounds. Physicians who practice culturally competent care will find meaning and satisfaction in the care of fellow human beings. MM

*Juan Bowen is a primary care general internist at the Mayo clinic and a faculty member in the Mayo Medical School. He also chairs the Multicultural Healthcare Alliance, an interagency partnership dedicated to improving health care for Rochester's immigrant populations.*

# Cross-Cultural Considerations in Health Care: One Hospital Responds

Cross-cultural competence is more than tolerance and a few "good deeds." It is developing the awareness, sensitivity, knowledge, and skills that encourage authentic, effective interaction. To health care providers, this means promoting health and avoiding miscommunication between provider and consumer. Such patient care requires organizations to commit resources to the continuing education of staff, to bilingual staff and interpreters, and to language-specific services.

At Hennepin County Medical Center (HCMC), staff interpreters are presenting an ongoing series, Listening to the Cultures of Our Community, to help employees become more sensitive to cultural needs and increase proficiency in caring for patients. The series addresses some of the obstacles refugees, immigrants, and those seeking asylum must overcome to enter the United States and focuses on the cultures of Minnesota's Eastern European, Spanish-speaking, Somali, Hmong, and other populations.

In 1999, HCMC logged more than 72,000 interpreter-assisted patient visits requiring interpreter assistance (see the Table). As of September 30, 2000, interpreter-assisted visits numbered 74,183. This represents a 30 percent increase over this time in 1999, with the greatest increases occurring in the number of requests for Spanish, Bosnian, and Somali interpreters.

HCMC employs more than 60 full-time interpreters who are available 24 hours a day, seven days a week, and speak 41 languages. In addition, HCMC employs a large bilingual staff and runs primary care clinics for Russian, Somali, and Spanish-speaking patients. These international primary care clinics support an interdisciplinary team concept of care that includes a dedicated bilingual nursing staff, nurse practitioners, clinical psychologists, social workers, a nutritionist, and a pharmacist. Douglas Pryce, M.D., is the physician in the Somali clinic; Craig Garrett, M.D., opened the Russian Clinic in 1991; and Carmen Diverte, M.D., a native of Peru, started the Spanish Clinic in 1994. The Spanish Clinic also employs a Spanish-speaking nurse. HCMC and the Family Medical Center in Minneapolis offer Spanish prenatal classes. Language-specific materials and displays have been created to educate populations on STDs, trauma, pregnancy prevention, asthma care, and well-baby visits. HCMC also employs two Somali-speaking



*Douglas Pryce, M.D., administers to patient James Horace at the HCMC Medicine Clinic. Horace immigrated from Liberia. Photo: Pamela Belding*

REFERENCES AND NOTES

1. http://www.mnplan.state.mn.us/demography/
2. Fadiman A. The spirit catches you and you fall down: a Hmong child, her American doctors, and the collision of two cultures. New York: Farrar, Straus, and Giroux, 1997. Two cultures clash when a U.S. medical center and a Hmong family are caught in a web of cultural differences.
3. http://www.ama-assn.org/ethic/diversity/
4. Galanti G. Caring for patients from different cultures: case studies from American hospitals. 2nd ed. Philadelphia: University of Pennsylvania Press, 1997. Brief hospital case studies illustrate how cultural variation in time orientation, communication style, and health beliefs can challenge both patients and health professionals.
5. Spector RE. Cultural diversity in health and illness. 4th ed. Stamford, CT: Appleton & Lange, 1996. The fourth edition of a standard work is a well-written review of basic principles in cross-cultural care.
6. Luckmann J, Nobles ST. Transcultural communication in health care. Albany, NY: Delman, 2000. A well-organized resource for developing communication skills, this practical book includes learning objectives and self-assessment guides in each section.
7. Purnell LD, Paulanka BJ, ed. Transcultural health care: a culturally competent approach. Philadelphia: F.A. Davis, 1998. This multi-author text presents a model of cultural competence followed by informative chapters about individual cultural groups.
8. http://www.omhrc.gov/clas/
9. http://www.hslib.washington.edu/clinical/ethnomed/
10. http://www.xculture.org/
11. http://www.DiversityRx.org/
12. http://www.crosshealth.com/


nurses—one American and one Somali—in its Somali Clinic. A Somali physician and former public health official is also part of the Somali patient care team. These native-speaking professionals help bridge the cultural gap between patients and HCMC providers.

Language-specific phone lines in Somali and Spanish are in place to help patients schedule appointments and receive information and assistance. Russian, Hmong, Ethiopian, and other language interpreters also call patients to schedule appointments, remind them of scheduled tests, and give instructions on how to access HCMC. A hospitalwide project is under way to help patients, visitors, and those with limited English proficiency navigate the hospital and clinics. Multiple patient education materials describing procedures, medications, and tests have been translated into many languages and are available on HCMC's intranet.

HCMC has created many programs to meet the needs of its increasingly diverse patient population, and it will continue to promote greater cultural understanding. In the words of Okokon O. Udo, executive director of the Center for Cross-Cultural Health in Minneapolis, "To be culturally competent doesn't mean you are an authority in the values and beliefs of every culture. What it means is that you hold a deep respect for cultural differences and are eager to learn, and willing to accept, that there are many ways of reviewing the world."

*By Cheryl Galbraith, R.N. director of Multicultural Services at Hennepin County Medical Center.*

***Interpreter-Assisted Visits***

| Language | 1999 Visits |
|---|---|
| Spanish | 52% |
| Somali | 22% |
| Hmong | 8% |
| Russian | 4% |
| Laotian | 3% |
| Vietnamese | 2% |
| Ethiopian | 1% |
| Cambodian | 1% |
| Other | 7% |



*HCMC interpreter Fami Katabay interprets for a family newly immigrated from Cairo, Egypt, in the HCMC Medicine Clinic. Photo: Pamela Belding*



# After Hours

*Reams of discarded medical journals and a brief conversation leave this writer overwhelmed by a sense of both abundance and waste.*

It's well past 5 o'clock and I'm still sitting in my cubicle, wanting to print out a few statistical spreadsheets before I leave the hospital campus.

The man who cleans the offices quietly makes his rounds. He's a relatively new employee, and I don't know his name. We've talked briefly on a few occasions, because I sometimes stay late into the afternoon when my work area takes on a welcome calm. I think he probably lives in the neighborhood of our inner-city hospital.

Today I'm especially glad to see the cleaning man because one of our staff has just unloaded 15 years' worth of accumulated material from his office. The retiring cardiologist stacked several piles of old medical books and journals outside his office after filling the container provided by Environmental Services. Yesterday I printed "PLEASE RECYCLE" on bright yellow Post-It notes and stuck them on top of the stacks. This morning I noticed that the piles hadn't moved, and I thought that the cleaning man, who appears to be a recent immigrant, perhaps couldn't understand my notes. Now I stop and ask him to haul away the piles that narrow the passageway between my work station and the cardiologist's

**By Lucia Wilkes Smith**

office door. The cleaning man smiles and answers he will do it right away. No problem.

I return to my computer but notice that the man hesitates, hovering near the doorway. I look away, but he sees that I was watching him. He walks toward my desk, holding a copy of the *Journal of the American Medical Association* that he has taken from the top of one of the piles. He shows me the copy of *JAMA,* pointing at the cover.

"Oh, yes," I smile and nod. "That journal always has beautiful art on its cover." Beside my desk now, the man touches the logo—*JAMA*—with the tip of his tapered finger.

"This," he whispers, "is the name of my uncle."

I tell him that the initials stand for *Journal of the American Medical Association.* I ask how he pronounces his uncle's name.

"Jama," he says, just as I imagine it would be. Then he tells me he hasn't seen his uncle in more than 16 years. I ask where his uncle lives.

"In Somalia," he replies. He traces a rectangle around the title—*JAMA*—with his index finger. "Sixteen years." He repeats the rectangle and the words.

"If you would like to have this magazine," I say, "you can take it. It's OK."

"Yes," he says, "thank you." He walks away, carrying the journal gently in two hands, as though it is a serving tray precariously balanced with delicacies.

I am suddenly struck at how some items, some words, are precious to one person or to one place. I wonder about Uncle Jama, and why this nephew, who now rolls a huge recycling barrel toward the piles of discarded periodicals, left Somalia. I wonder whether the cleaning man would be allowed by that government to visit Somalia, whether he could afford to go.

I think about what it must be like to work during the quiet nighttime of the otherwise bustling hospital, emptying bins of paper, seeing the darkened computer screens on every desk, the still photocopiers. I wonder if the cleaning man is disturbed by "recycling" all we discard every day—journals, outdated books, reams of paper with printing on only one side.

I have stayed, briefly, in places where abundance does not exist. Where schoolchildren don't have enough stubs of pencils to go around, and they have to share. Where there is no community trash-hauling service because there is no trash. Plastic wrap and paper towels do not exist. I think of people living in the places I have visited—Gaza City, Chichicastanango, Somotillo, the squatters' settlements on the outskirts of Guatemala City. I feel the distance between one community and another, one continent and another. I react by focusing on the material wealth that surrounds me.

This morning I wrote a memo requesting a second $1,900 fax machine, to be used by the schedulers and transcriptionists who must transmit and receive multipaged documents simultaneously. This afternoon I contracted with a string trio and a catering service to provide entertainment and refreshments for guests at the retirement reception, which will cost in excess of $3,000. I understand the need for equipment that supports a state-of-the-art cardiology practice. I understand the appropriateness of celebrating and honoring the work of a fine physician as he leaves a successful practice. Yet, for a few moments this afternoon, the reality of everyday expenditures overwhelms me.

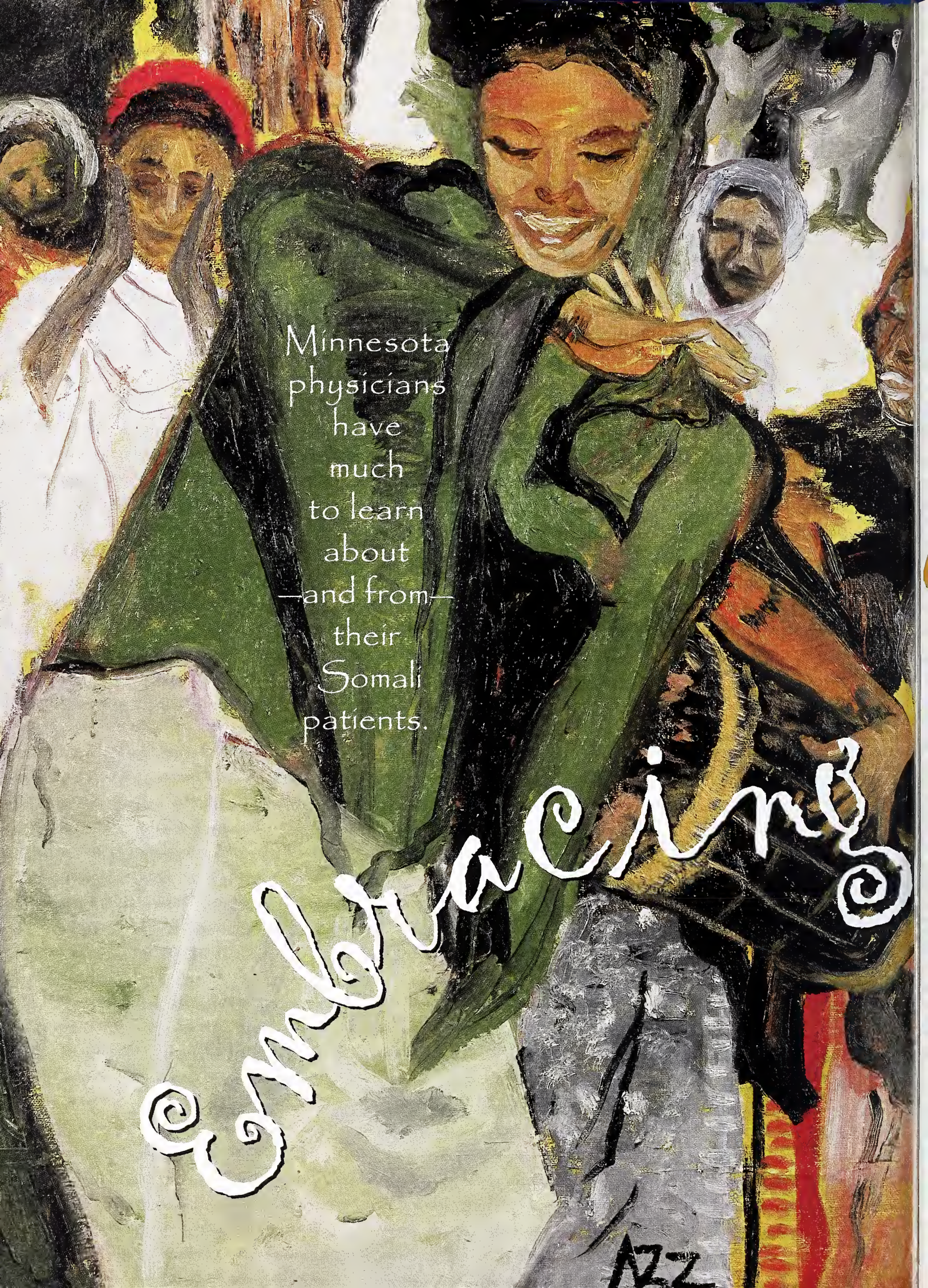
I realize that my train of thought, occasioned by the brief conversation with the Somali cleaning man, reflects my own sense of resource imbalances, my values, not his. I don't really know if he suffers anguish as he disposes of medical journals. He may experience only enormous relief and singular joy in his migration to the United States without ever giving a second's thought to waste paper that is printed on only one side.

No matter what I imagine about his life, my own existence is replete with fantastic resources that I use and discard with very little thought. From time to time I simply must pause and take notice. I must consciously reevaluate and recapture the precarious balance between availability and appreciation. It's important that I not forget I have known people who survive in harsh circumstances. Some live very far away, some are near neighbors. I decide, as I have resolved many times before today, not to waste these materials provided for my work.

I promise myself too that the next time I see the cleaning man, I will—with a demeanor of appropriate modesty—ask him please to tell me his own name. MM

*Lucia Wilkes Smith works at the Virginia Piper Cancer Institute at Abbott Northwestern Hospital, Minneapolis. She is a candidate for a Master of Fine Arts in Writing degree at Hamline University in St. Paul.*

Reprinted with permission from "After Hours." *JAMA* 284(9):1067, September 6, 2000. Copyright 2000 American Medical Association.


Minnesota physicians have much to learn about —and from— their Somali patients.
Embracing

# Diversity

When the childbirth video zoomed in for a graphic, bloody shot of the baby's head crowning, Hani (not her real name) buried her face in her head scarf, crying, "I can't look!"

I wasn't surprised. After all, at 22, Hani was the youngest of the eight Somali women in my weekly health class for English language students, and she was visibly pregnant, despite her enveloping traditional robes. I had expected her to be moved by the video's detailed footage of an American woman in active labor delivering her first child. The video was explicit, but I thought that it would be a good thing for Hani, especially, to view. I didn't want her to go into labor without a clue of what lay in store for her.

Video over, I turned to the class. "What did you think?" I asked. Hani is usually chatty, but this time she was silent. Darn, I thought. It frightened her.

Finally, she spoke. "Well, that's not how it was when my other babies were born."

"Your other babies?" I tried not to let my surprise register.

"Oh, yes," she said. "This one will be my fifth. I have one child living. The other three died; one stillborn, one at eight months, and the third at a year and a half. I never knew why any of them died. I'm praying to Allah that this one will live."

I am a health educator with a graduate degree from an American university, but that day I felt like a fool. With two healthy, living daughters, my experience in matters of life and death paled compared with those of my student, who is half my age. Yet I believed that only she should learn from me.

After class, I stopped Hani on the way out. "Will you tell me a little more about how Somali women take care of themselves and their families?" I asked. "I'd really like to know."

Somalis are among the newest Minnesotans to wonderfully confound our expectations, the latest strand in the state's variegated tapestry of people and cultures. In just 10 years since civil war in their home country made ordinary life impossible, somewhere between 20,000 and 40,000 Somalis have resettled in Minnesota.

They are hard to miss: the women in billowing hijabs that cover them from brow to sole, the men tall and elegant in Western dress, clustered in coffee shops on the West Bank in Minneapolis, the children flocking through our public schools, more than 500 of them in one south Minneapolis high school alone. Most Somalis have settled in Hennepin County, especially in Minneapolis, but there are smaller Somali communities in many Minnesota towns, including Rochester, Marshall, and Owatonna.

Why are they here? For the same reasons that the parents or grandparents or great-grandparents of other Minnesotans came here—because life in the home

*Opposite: "Somali Women Dance," 1999, by Aziz Osman*

**By Patricia Ohmans, M.P.H.**

country had become untenable; because farming could no longer sustain a family; because men with guns were threatening to harm them. Somalis come to Minnesota because they hear about the state's excellent schools, or because they are looking for work, or because they have family here.

They find Minnesota weather harsh but the state itself hospitable, and they tell others. Many Somalis here are "secondary migrants" who originally settled in another state, a fact that accounts for the widely varying estimates of the size of the Somali community. Originally herdsmen and fishermen, Somalis are nomadic people, used to traveling in search of better conditions.

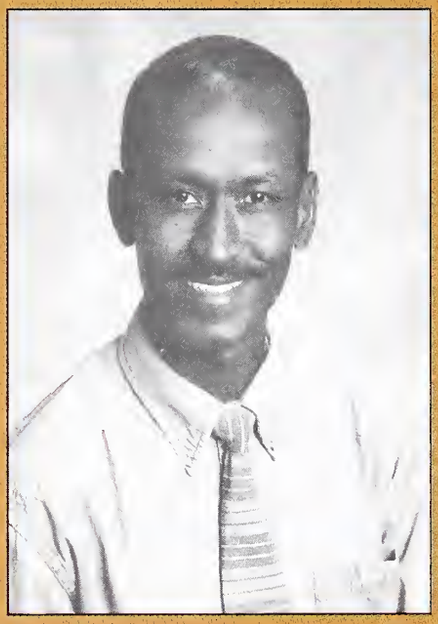
"The exact number of Somalis in Minnesota is anybody's guess," says Ann O'Fallon, refugee health coordinator for the state health department. "The estimates range downward to 8,000 and upward past 40,000."

Most Somalis in Minnesota have spent months, if not years, in refugee camps near the Kenyan border before being allowed to emigrate. For them, life in Minnesota is just another challenge in a series of hurdles, a series most of their health care providers can only imagine.

Juan Bowen, M.D., an internist at the Mayo Clinic, acknowledges the critical need for more education of those providing health care to Somali refugees. "We have had a large increase in Somali immigrants in Olmsted County." (County figures place the Somali

## Somali Physician Receives MMA Meritorious Service Award

For Abdi-Rahman D. Mohamed, M.D., of Park Nicollet Clinic, the biggest, single problem confounding his work with Somali patients is not clinical unfamiliarity with tuberculosis or other "exotic" infections; he deals with several TB cases a week. Nor is it his patients' inability to speak English; with those who are not fluent in English, Mohamed can try Somali, Arabic, or Italian.



*Abdi-Rahman D. Mohamed, M.D.*

"Insurance is the biggest barrier to good care for my patients," the Somali-born physician says. "Every day there are patients in my waiting room who I have to turn away because they don't have the right kind of insurance." These patients are often the ones he sees after hours while making house calls. Mohamed's devotion to patient care is among the reasons the Minnesota Medical Association recognized him this fall with an Award for Meritorious Service to Minority Populations.

A Western-trained family practice doctor, Mohamed emigrated to the United States in 1982, just after high school. Trained in Illinois and Maryland, he was delighted to find so many of his countrymen when he arrived in the Twin Cities in 1998. Hundreds of them have sought him out at the south Minneapolis clinic, where he sees patients with everything from sore throats to psychosis. On a given day, 20 of 22 patients may be Somalis. "The whole time I have been in the United States, not a day has gone by when I didn't think about how to return to Somalia. Now you could say Somalia has come to me," Mohamed says.

A long-distance runner (who finished 13th in this year's City of Lakes half-marathon) and the new father of a baby boy, Mohamed also finds time to volunteer as a health expert on Somali radio and television. Someday he hopes to return to Somalia, but for now he expresses his desire to help by collecting medical supplies to send to Somali hospitals, paying the cost out of his own pocket. Despite 12-hour work days, he finds time for other interests. "Like most Somalis, I am addicted to international politics," he jokes. But Mohamed is happily overwhelmed. "My work is a total joy."

population at about 4,000.) "We here at Mayo and other providers in the area are faced with new challenges, communication and cultural barriers, as well as treating diseases that are common to many African immigrants like tuberculosis, parasites, and chronic hepatitis."

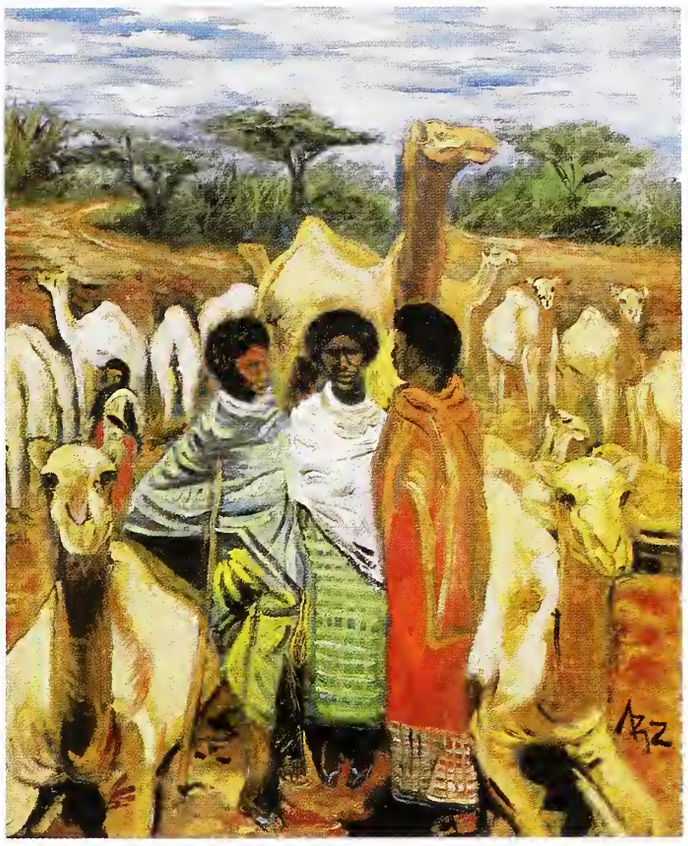
Bowen chairs the Minnesota Medical Association's subcommittee on cultural competence, which in January 2001 will host a training conference focusing on health care needs of Somalis. The conference, part of what Bowen hopes will be an ongoing series on cultural competence and immigrant health, looks at the Somali group first "because it is relatively new and therefore less well understood," Bowen explains.

Speakers at the January conference will focus on health conditions that are common among Somalis. They will also discuss how Somalis view health care and how their religious and cultural beliefs may collide with the expectations of their Western-trained caregivers.

The concern is not a trivial one: Cross-cultural misunderstandings have led to many disappointing or even dangerous experiences for patients and health care providers, say conference planners. An emergency room physician, for example, should know that a Somali parent may resist a blood transfusion for an injured child or that a patient from one Somali clan may be reluctant to talk with an interpreter from another clan, despite their shared nationality and language. In Somali cultures (as in many more traditional immigrant cultures), female patients strongly prefer to be treated by a female practitioner, especially for reproductive health concerns. Bowen points out that the session on Somalis is simply the first step in exploring what it means to be medically competent across cultures. (For more on the conference, see "The Somali Patient" sidebar, page 23.)

Bowen suggests that tuberculosis is one of the conditions that health care providers treating Somali patients should keep in mind. "Think TB!" urges a recent newsletter on refugee health from the Minnesota Department of Health. Despite a national downward trend, the incidence of TB is increasing markedly in Minnesota, largely due to recent immigrants from sub-Saharan Africa. In 1999, nearly 80 percent of the state's 201 reported new TB cases occurred in people born outside the United States, according to the health department's TB Prevention and Control Program.

"Any physician seeing a Somali patient for the first time needs to be aware of the diseases, like TB, that are endemic in that patient's country of origin," cautions Wendy Mills, TB program director. Estimates of TB prevalence in Somalia are hard to come by; civil war



*"Watering of Camel," 1997, by Aziz Osman*

makes public health demographics inexact. But the estimated global prevalence of TB infection (as distinct from active TB) is approximately 33 percent, according to the World Health Organization, with most of the cases concentrated in nine African countries, including Somalia. It's safe to assume that all Somali patients have been exposed to TB at some point in their lives.

Mills urges physicians who have questions about possible TB cases among their patients to contact the state health department (see Resources sidebar, page 23, for contact information). Laboratory tests, expert consultation, and even free medications are provided for any patient with active or latent TB.

Screening and diagnosing TB is difficult in many patients, since its symptoms can be frustratingly vague: fatigue, night sweats, weight loss, and a cough that won't go away. Providing care is even more difficult with patients who do not speak English and must rely on an interpreter to convey the complicated, multidrug TB treatment regimen.

But screening, diagnosis, and treatment of TB in Somali patients is almost always complicated by the fact that for Somalis, tuberculosis is a curse, literally. "When a Somali wants to curse someone, he says, "May God give you TB," says Fozia Abrar, M.D., M.P.H., a Mogadishu-born physician who practices at Regions Hospital. "Somalis fear TB worse than HIV. Often, they have never seen someone be




*Somali-born Aziz Osman is an artist and gallery owner now living and working in Minneapolis. His art, which depicts the beauty and traditions of his native country and people, was recently exhibited at the Hennepin County Government Center and can be seen at the Puntland Art Gallery, 3749 Cedar Avenue South, in Minneapolis (612/722-0756).*

*"Women Selling Milk," 1992, by Aziz Osman*

treated for TB and recover."

For Abrar, the solution is painstaking explanation, as often as necessary. "I often have to see a patient more than once, just to go over the exact same, half-hour long discussion of what it means to have a positive PPD test," she says. "I need to spend much more time on health education with some of my Somali patients."

A treatment process known as DOT, for Directly Observed Therapy, is also recommended for patients who may not complete their recommended TB treatment. Public health nurses and other specially trained outreach workers will personally visit patients who need help adhering to the long, and sometimes complex, drug regimen.

Judy Christensen, R.N., a nurse with the Hennepin County Community Health Department, supervises the home visitors who track down dozens of Somali patients a day "at home, at school, at work, wherever they are" to make sure that they swallow their oral medications.

"It's hard to keep track of people sometimes," Christensen says. "Homelessness is a big problem for Somalis. They may not be living on the street, but 10 or 15 people might be living in a one-bedroom apartment. It's disheartening to go into an apartment and see half a dozen cribs lined up against the walls and to know that sometimes Mom is sleeping under the crib because there's no other place for her."

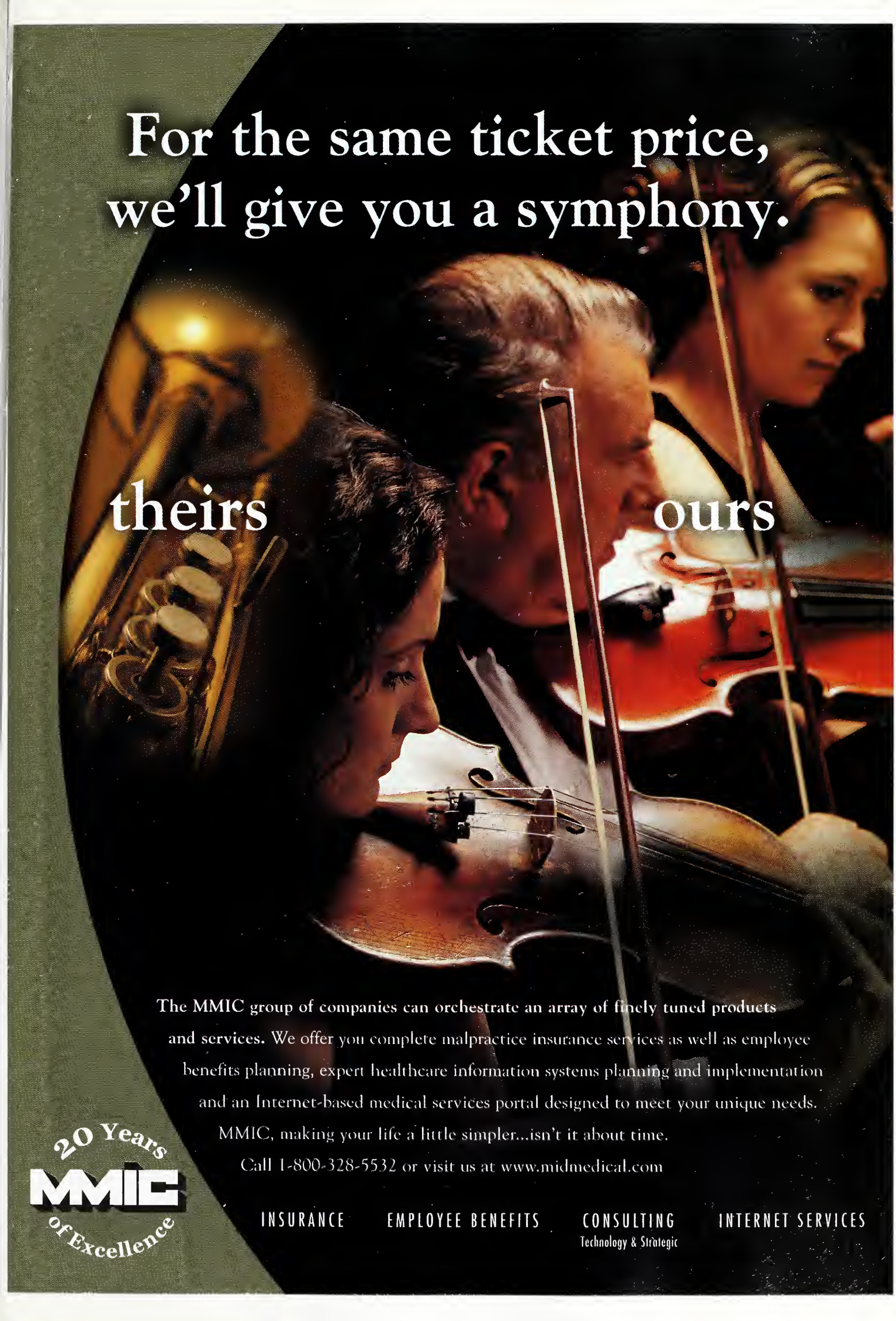
Such provisional housing arrangements usually don't last long, and Christensen often finds herself tracking her patients from one address to the next. "Not every health department can do things the way we do," she says. "It's a really expensive way to do it, but we have to in order to keep people on their meds and keep TB under control," she says.

A second, less-visible but no less complex, health issue for those treating Somali immigrants is female genital cutting, a widespread practice in Somalia. Because nearly all Somali women have been cut or "circumcised," Minnesota gynecologists and obstetricians should be aware of the practice.

Female genital cutting, or the surgical removal of genital tissue, is done for traditional and cultural reasons and not, as many people believe, as a requirement of the Muslim faith. Parents who take their daughters to be cut believe that the operation makes the genitals more hygienic and easier to keep clean. Some believe that a girl who has been cut is more marriageable and less likely to be promiscuous.

In Somalia, the surgery is sometimes carried out in hospitals by doctors or midwives, but more often it is done by traditional practitioners working in homes or villages. Somali women who are circumcised, usually as young girls, may have only the clitoris or outer labia amputated. But most have inner labia removed and the vaginal opening sewn almost closed, in a practice known as infibulation.

Women who have been infibulated develop infections and reproductive system problems more frequently, according to Mary Malotky, a certified nurse-midwife at Hennepin County Medical Center. They have difficulty with sexual intercourse and severe pain


For the same ticket price,
we'll give you a symphony.
theirs
ours
The MMIC group of companies can orchestrate an array of finely tuned products and services. We offer you complete malpractice insurance services as well as employee benefits planning, expert healthcare information systems planning and implementation and an Internet-based medical services portal designed to meet your unique needs.
MMIC, making your life a little simpler...isn't it about time.
Call 1-800-328-5532 or visit us at www.midmedical.com
20 Years
MMIC
of Excellence
INSURANCE
EMPLOYEE BENEFITS
CONSULTING
Technology & Strategic
INTERNET SERVICES

during childbirth. "We have to de-infibulate [by cutting through the scar tissue holding the labia together] at the point where the baby's head is crowning, when it is putting pressure on the perineum. That means that all through her pregnancy, a woman may be wondering, 'How will my baby get out? How much pain will I suffer?' " Malotky says.

Because of the trauma associated with the cutting (often performed without anesthesia) and the likelihood of physical and psychological complications, the World Health Organization has called for an end to the practice worldwide, rejecting it as "an infringement on the physical and psychosexual integrity of women and girls and a form of violence against them." In the United States, female genital cutting is illegal.

Opponents of female genital cutting liken it to child abuse, and refer to the practice as "genital mutilation." As a Somali woman, Abrar has a more nuanced view. "Remember, nearly all adult Somali women in America have been circumcised," she explains. "It is not a healthy thing, it is not legal to do in the U.S., and it is a practice that should be discouraged." On the other hand, Abrar continues, "I feel strongly that female circumcision should not be characterized as abuse. People who talk about it as mutilation want to make a victim of us."

# Rochester Program Eases Transition to Western-style Care

It's a common stereotype in health care facilities throughout Minnesota: Immigrants—especially Somalis and other Africans—are unable to keep their appointments. They show up late, or not at all. When they do come in, however, they expect to be seen, even if they don't have an appointment.

"That perception—and there's some truth to it—is part of an inevitable cultural clash between U.S. health care providers and immigrant patients," explains Jeanne Nelson, R.N., M.S.N., coordinator of the Multicultural Healthcare Alliance in Rochester.

"Many immigrants have a much more flexible view of time than we do," Nelson says. In addition, newcomers may be daunted by seemingly simple tasks, such as making an appointment using a voice-mail system, or reading a bus schedule to decide when to leave for a clinic appointment.

The Alliance's PathFinder program, a collaborative effort involving the Mayo Clinic-Rochester, Olmsted County Public Health Services, and Olmsted Medical Center, helps immigrants attempting to access health care overcome some of the basic obstacles that can keep them from even getting in the clinic door. Trained bilingual workers, themselves immigrants, serve as guides for their fellow community members. Current PathFinders include Faduma Ali, a Somali woman, as well as Marcela Rodriguez from Colombia and Bunly Suy, a Cambodian man.

PathFinders teach by example, Nelson says, seeking to promote the client's independence as quickly as possible by accompanying clients to clinic appointments, and showing them the ropes along the way.

"PathFinders teach folks how to use the phone to call ahead, how to ride the bus, and how to check in at the desk for an appointment. They also slip in teaching about health concepts that may be unfamiliar, such as the need for preventive care," Nelson explains.

Seventeen Somali clients, three Cambodians, and half a dozen Latinos have "graduated" from the program, which means they are now independently seeking health care. Only one of them has had problems, Nelson reports. The program is labor-intensive, but the benefits to both patients and providers seem clear, Nelson says. "For example, once people understand the rationale for an appointment system, they will be more likely to keep those appointments. They know that it's important to understand how our system works so they can get the care they need, and they're eager to learn. We just had to figure out a way to ease the transition."

## The Somali Patient

### An MMA-Sponsored CME Seminar on Cultural Competence

To improve access to health care and minimize cultural barriers for the Somali patient in Minnesota, health care providers need to understand what influences the Somali views of wellness, illness, and medical treatment. The Minnesota Medical Association is offering two sessions on cross-cultural competence, both focusing on the Somali patient:

Tuesday, January 9, 2001 – Rochester
5:30 – 8:00 p.m.
Kahler Hotel

Tuesday, January 16, 2001 – Roseville
6:30 – 9:00 p.m.
Ramada Inn

**Speakers:**

Fozia Abrar, M.D., M.P.H., will speak at Rochester. Dr. Abrar is from Somalia and practices preventive medicine at Regions Hospital in St. Paul.

Abdi Mohamed, M.D., will speak at Roseville. A family physician from Somalia, Dr. Mohamed understands the Somali culture and how the Somali people view health care.

Okokon Udo, Ph.D., will speak at both sessions. Dr. Udo is executive director of the Center for Cross-Cultural Health in Minneapolis.

The MMA designates this educational activity for a maximum of 2.0 hours per session in category 1 continuing medical education credit toward the AMA Physician's Recognition Award.

For more information, please contact Wendy O'Donnell (wodonnell@mnmed.org); to register, contact Vicki Westling (vwestling@mnmed.org) at 800/342-5662.

## Somali Health Resources

### Local organizations

Somali Community in Minnesota
612/871-6786, ext. 31
www.cscmn.org

Center for Cross-Cultural Health
612/379-3573
www.crosshealth.com

Minnesota Department of Health
www.health.state.mn.us

TB Prevention and Control Program
612/676-5414

Refugee Health Program
612/676-5237

### National organizations

Rainbo: Research, Action and Information Network for Bodily Integrity of Women
www.rainbo.org

World Health Organization
www.who.org

### Local health education materials

Navigating the Health Care System and Preventive Health Care/Child and Teen Checkups: Short videos produced by the Members and Community Awareness Workgroup. Narrative in Somali (copies in Oromo and other immigrant languages also available). To order a copy, contact Kevin Jurek, 612/348-5904.

Somali Decisions about Child Spacing: A booklet about family planning and contraception designed for use with Somali couples. Written in Somali and English. To order a copy, contact Diana DuBois at the Neighborhood Health Care Network, 651/489-2273.

Reproductive health providers should be prepared for the likelihood that a Somali woman will have been cut, that the cutting will have scarred over, and that the woman's outer genitals will look very different from most women's, Abrar says. "Be ready to treat the circumcised woman as normal," she urges. A nonjudgmental reaction on the part of the provider will increase the chances that any complications of genital cutting can be openly discussed.

Health issues such as female genital cutting and tuberculosis are only the most dramatic health concerns facing Minnesota's Somali community. Other diagnostic and treatment challenges include parasites, chronic hepatitis, and even malaria. Complicating the differential diagnosis is the likelihood of depression, or other emotional illness, often expressed in physical symptoms. As in many immigrant cultures, the concept of mental illness is not widely understood or accepted.

"So many of my immigrant patients, not just Somalis, have masked depression," says Abrar. "They come in complaining of back pain, or headaches, of not being able to sleep. I prescribe a lot of antidepressants, but I also talk about exercise, about eating right, and getting out socially. In Somalia, we were used to getting out of our homes and walking about, visiting with one another. Here, we are so isolated, by the weather, by poverty and television, and the fear of crime."

To counteract the isolation, Abrar dreams of creating an aerobic exercise program for Somali women, perhaps at Skyline Towers, a large public housing apartment building in St. Paul that is home to hundreds of Somali immigrants. "A program that got women dancing our traditional dances would do a lot to counteract the unhealthy effects of trauma and displacement," she says.

In the long run, she believes, Somalis will thrive in Minnesota. "Somalis are incredibly strong, incredibly hard workers," she says. "A Somali nomad is a guy who will sleep for three hours and work for 20, and the women work even harder.

"But we are also very flexible. We get a lot of strength from our culture, but we don't condemn the culture of others. We embrace what is good about other cultures, and there is a lot that is good for us here." MM

*Patricia Ohmans is a health educator who runs Health Advocates, a St. Paul–based research and training organization focusing on immigrant and cross-cultural health.*


FAMILY PRACTICE

Northwest Family Physicians

Dynamic, independent 3-location, single-specialty practice in northwest Minneapolis suburbs is seeking additional associates for its Crystal and Plymouth sites. OB is available if desired.

- Partnership opportunity after 2 years
- Competitive salary with incentives
- Excellent benefits, 401k/employer-paid pension
- Practice at one site/one hospital
- Physician-owned

*Please contact or fax CV to:*
*Chris Bennett, M.D.*
*5502 W. Broadway, Suite 200,*
*Crystal, MN 55428*
*763-287-6500 ◆ fax 763-531-2105*
*visit our website at* ***www.NWFPC.com***

ASPEN Medical Group

Aspen Medical Group is a 160+ provider multi-specialty group with 9 clinics located throughout the Minneapolis/St. Paul metro area. We are currently seeking BE/BC physicians for the following specialties:

***Dermatology***
***Internal Medicine***
***Urgent Care***

Aspen Medical Group is governed by its own physicians and health care providers. Guaranteed base salary available for the first two years. Competitive benefits package.

For further information, please contact:

Nancy Borgstrom, Provider Services Coordinator
1020 Bandana Boulevard West
Saint Paul, MN 55108
phone 651-641-7081 • fax 651-641-7151
e-mail nborgstr@aspenmed.org
EOE. No J-1 opportunities available.

# Enteric Parasites in East African Immigrants

## *Symptoms and Duration of U.S. Residence Are Not Predictive*

William J. Sachs, M.D., Richard Adair, M.D., and Varvara Kirchner

ABSTRACT

**The Minnesota Department of Health recommends a health assessment for all refugees within 1 to 3 months of arrival, including screening for enteric parasites. Little information exists, however, to help clinicians decide whether to screen asymptomatic persons who have lived in the United States for a year or more. We questioned 71 immigrants from East Africa now living in Minnesota's Twin Cities about gastrointestinal symptoms and duration of residence in the United States and asked for stool specimens for ova and parasite examination. Fifty-one patients (72%) returned specimens.**

**The prevalence of symptoms was no different in the 14 patients with pathogenic parasites than in the 37 without (71% vs. 76%). Patients with pathogens were likely to have lived in the United States for less time than those without pathogens (median 17 months vs. 32 months), but the groups were not discrete.**

**Clinical data did not identify a group unlikely to have parasites or need screening.**

Immigrants are arriving in the United States in unparalleled numbers, many of them with infectious diseases. The number of immigrants in the 1990s exceeded even the mass immigration that took place at the turn of the last century.[1,2] Large numbers of Asian immigrants in St. Paul have been followed by Somali immigrants in Minneapolis and Latino immigrants in both the Twin Cities and nonmetropolitan areas of Minnesota.[3] The Minnesota Department of Health recommends screening all immigrants from developing countries for tuberculosis, hepatitis B, and enteric parasites, and screening symptomatic patients for sexually transmitted diseases and malaria.[4]

In practice, this is often not done or is incomplete. Federal law requires a chest radiograph (followed by a sputum smear for acid-fast bacilli if abnormal), screening for syphilis, HIV, and leprosy, and taking a "medical history of physical and mental disorders" to obtain a refugee visa.[5] However, this screening is often done in substandard facilities such as refugee camps; many immigrants are undocumented; and many don't remember what tests were done or where.[2] Clinicians are often faced with deciding whether or not to screen asymptomatic people who have lived in the United States for years.

Incomplete data, mostly gathered retrospectively from Southeast Asian or Central American refugees, suggests that enteric parasites may exist in asymptomatic immigrants who have lived in the United States for a long time.[6-10] However, clinicians often fail to screen for parasites, especially when the patient feels well, does not speak English, is unfamiliar with the concept of preventive medicine, and has no health insurance.

We designed a systematic study of a group of East African immigrants to determine whether clinical parameters (recent gastrointestinal symptoms and duration of U.S. residence) could identify patients likely to have parasites, so that screening efforts could be more narrowly focused.

### *Patients and Methods*

We asked 71 Somali and Ethiopian patients seen consecutively in one urban Minneapolis clinic how long they had been in the United States and if they had recently experienced abdominal pain, nausea or vomiting, indigestion, or diarrhea. An interpreter questioned patients in their native language, or patients answered a questionnaire translated into Somali. Details about severity or duration of symptoms were often unavailable; we excluded symptoms described as brief (less than 1 week) or occurring more than 1 year ago. We gave all patients 3 sets of stool containers, with formalin and polyvinyl alcohol solution, along with instructions for collection. Certified laboratory technologists at a large, urban teaching hospital serving many immigrants and refugees performed microscopic analysis for ova and parasites. We asked patients who did not return stool specimens to do so at subsequent clinic visits over the next year. Because many patients frequently moved and lacked telephone service, it was unfeasible to track down those who did not return to the clinic after the initial visit.

## Results

Of the 71 patients, 60 were from Somalia and 11 from Ethiopia; most were refugees fleeing war and famine who had spent months to years in refugee camps near Nairobi, Kenya. Almost all lived in Minneapolis. Forty-six (65%) were women. Median age was 33 years (range 18–92 years). Median duration of U.S. residence was 31 months (range 1–170 months). Patients came to the clinic for general medical care, referred by friends or family. Only 1 patient reported previous treatment for enteric parasites. Fifty (70%) reported various gastrointestinal symptoms: 41 complained of abdominal pain, 24 nausea or vomiting, 24 of indigestion, and 11 of diarrhea.

Fifty-one patients (72%) returned at least 1 stool specimen; 37 returned 3, 7 returned 2, and 7 returned 1. Of these 51 patients, 14 (27%) showed evidence of pathogenic parasites and 37 (73%) did not. Nine (18%) showed evidence only of parasites not considered pathogenic. Thirteen had evidence of more than 1 parasite (see the Table).

The 51 patients returning stool specimens were similar to the 20 patients who did not with respect to age (median, 33 years for both); sex (63% vs. 70% females); duration of U.S. residence (median, 27 months vs. 39 months); and reported pain (61% vs. 50%), nausea or vomiting (35% vs. 30%), indigestion (31% vs. 40%), or any gastrointestinal symptoms (75% vs. 60%). Patients returning specimens reported more diarrhea than those who did not return specimens (21% vs. 6%).

Of the 51 patients returning specimens, 38 reported gastrointestinal symptoms and 13 did not. Of the 14 patients with pathogenic parasites, 10 reported symptoms and 4 did not. No single symptom was more prevalent in the 14 patients with evidence of stool pathogens than in the 37 with negative stool tests, and the prevalence of any gastrointestinal symptom was similar in the 2 groups (71% vs. 76%) (see Figure 1).

Patients found to have stool pathogens had lived in the United States for less time (median 17 months, range 4–50 months) than those without pathogens (median 32 months, range 1–87 months), but the groups weren't discrete, and 4 patients with pathogens had lived in the United States for more than 3 years (see Figure 2).

Table

*Parasites Found*

| Pathogens | Non-pathogens |
|---|---|
| Blastocystis hominis (6) | Endolimax nana (11) |
| Trichuris trichuria (3) | Entamoeba coli (7) |
| Dientamoeba fragilis (3) | Entamoeba hartmanii (6) |
| Enterobius vermicularis (2) | Iodamoeba buetschlii (2) |
| Entamoeba histolytica (1) | Chilomastix mesnili (1) |
| Schistosoma mansoni (1) | |
| Ascaris lumbricoides (1) | |

## Discussion

Using symptoms as a way to identify patients carrying pathogens had a sensitivity of 71% (95% CI 48%–96%), a specificity of 24% (95% CI 11%–38%), a positive predictive value of 26% (95% CI 12%–40%), and a negative predictive value of 69% (95% CI 44%–94%). These are not clinically useful numbers. When sensitivity and negative predictive values are high enough, negative results can be used to exclude disease; in this case, absence of symptoms did not reliably exclude parasites. The confidence intervals indicate that another or larger study is likely to reach similar conclusions.

This study's strength is the collection and reporting of data from all patients seen, rather than only from patients returning stool specimens; selection bias could substantially influence results in low return–rate studies. Our return rate (72%) is relatively high for this type of patient.[11] Because clinical data, including prevalence of gastrointestinal symptoms, for patients who returned stool specimens matched data for those who did not, it seems likely that the 51 patients returning stool specimens were representative of the entire study population. This study's weakness is that it depended on the patient's recollection of symptoms; language constraints also prevented us from sorting out more persistent or bothersome symptoms. However, this is the kind of information typically available to clinicians evaluating such patients.

In a study of adult Southeast Asian refugees in Seattle (with more hookworms and *Strongyloides stercoralis* than our patients had), Buchwald et al.[6] found no association among parasitosis, symptoms, and duration of U.S. residence, but only described patients who returned stool specimens, and the authors provided limited data on duration of residence (more or less than 1 year). Salas[7] and Safarty[8] and their colleagues reported no association between symptoms and parasitosis in groups of Central Americans, including children, who returned stool specimens; Salas reported no helminths in patients who had lived in the United States for more than 3 years. Lerman et al.[9] found no association between parasitosis and duration of residence in a group of recently arrived asymptomatic Southeast Asian refugees who returned stool specimens. Molina et al.[10] reported hookworms in refugees who had lived in California for up to 6 years.

Several factors could help explain why symptoms are a poor predictor of parasitosis in immigrant and refugee patients who have lived in the United States for more than a year. Patients with symptomatic infections may have already been diagnosed and treated (despite uncertainty about this among non-English speakers), so that less symptomatic infections are more likely to persist. Of the pathogens found, *Blastocystis hominis* has limited virulence in immunocompetent patients,[12,13] and light nematode infestations are often asymptomatic. (The pathogens that were detected in these patients generally were similar to what we would expect to find in Somalia,[14] with many nematodes and fewer aggressive protozoa such as

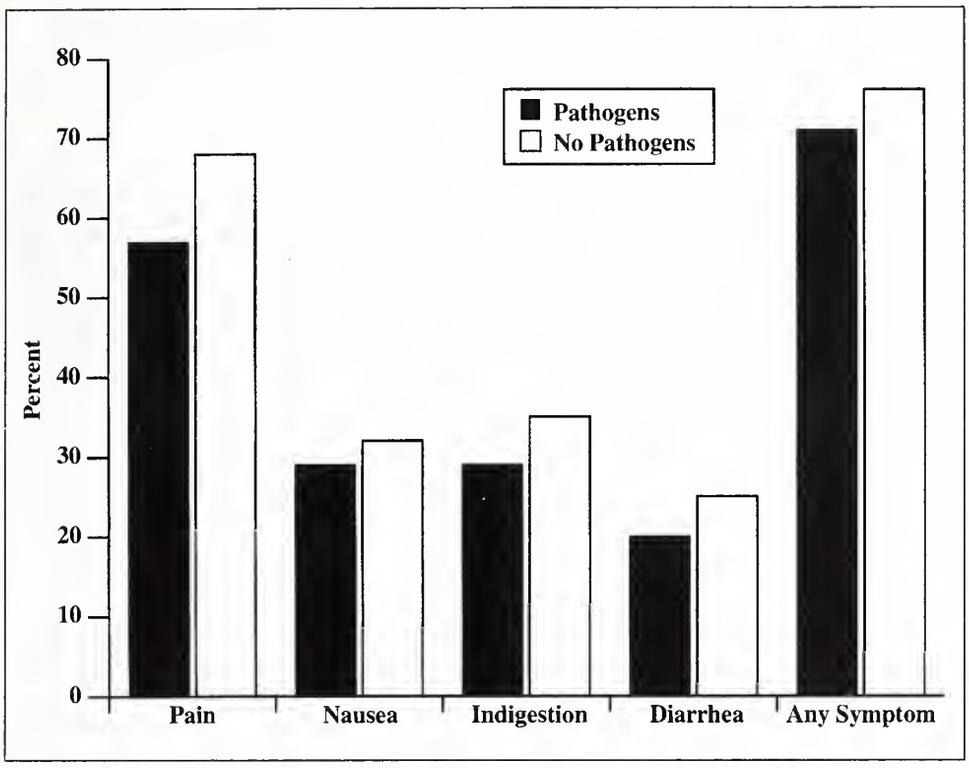



Figure 1. Prevalence of symptoms in patients with and without pathogens.

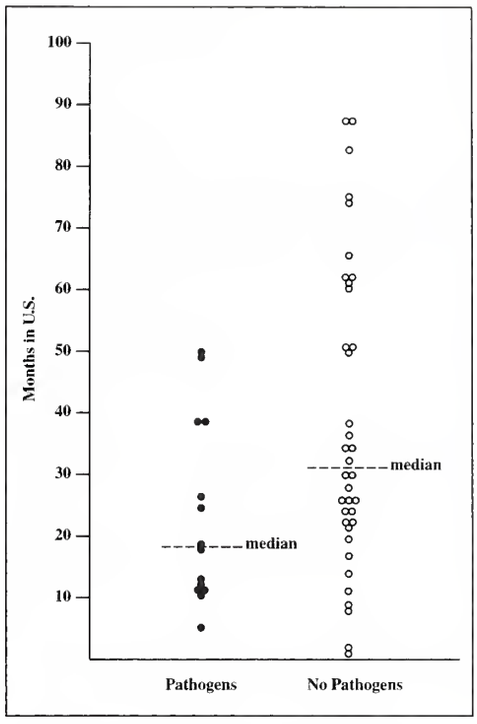



Figure 2. Duration of U.S. residence in patients with and without pathogens.

*Entamoebae histolytica* and *Giardia lamblia*.) Finally, refugees experiencing emotional and cultural stress tend to report other somatic symptoms[15] that could mask mild symptoms of enteric infection.

None of these factors is unique to this group of patients or limits the clinical usefulness of detecting parasites that are easily treated, could cause disease, and in some cases are transmissible. Excluding the 4 patients who had evidence of *B. hominis* alone does not materially change any of the results. The patients with the most clinically important parasites (*E. histolytica, S. mansoni, A. lumbricoides, E. vermicularis*) were not recent arrivals (median U.S. residence 14 months) or more symptomatic (only 25% reported diarrhea).

Investigators have proposed universal treatment with albendazole as cost effective,[16] but it is impractical to treat many possibly uninfected patients for the benefit of a few, and treatment may not eliminate some parasites.

We conclude that in this group of African immigrants, neither long duration of U.S. residence nor absence of gastrointestinal symptoms reliably excludes pathogenic enteric parasites or identifies a subgroup that does not need screening. Clinical intuition is not a good substitute for public health recommendations that are based on infections endemic in an immigrant's native land. MM

*Acknowledgments*

The authors thank Kevin Weber for his assistance in compiling the data and Fadumo Farah for her work as a Somali translator.

*William Sachs is a fellow in gastroenterology at the University of Minnesota. Richard Adair is a general internist who helps internal medicine residents at Abbott Northwestern Hospital provide primary care for many immigrants and refugees in south Minneapolis. He is a clinical professor of medicine at the University of Minnesota. Varvara Kirchner is an undergraduate student at the University of Minnesota.*

REFERENCES

1. Westpahl D. Business looks overseas for workers. Star Tribune 2000 Oct 16: Sect. A:5 (col.1).
2. Adair R, Nwaneri MO. Communicable disease in African immigrants in Minneapolis. Arch Intern Med 1999;159(1):83-5.
3. Peterson D. The state's changing face. Star Tribune 2000 Aug 30: Sect. A:1 (col 1).
4. Minnesota Department of Health. Refugee health screening in Minnesota: current status and recommendations. Dis Control Newslett 1997;25:37-41.
5. Ackerman LK. Health problems of refugees. J Am Board Fam Pract1997; 10(5):337-48.
6. Buchwald D, Lam M, Hooton TM. Prevalence of intestinal parasites and association with symptoms in Southeast Asian refugees. J Clin Pharm Therapeutics 1995;20(5):271-5.
7. Salas SD, Heifetz R, Barrett-Connor E. Intestinal parasites in Central American immigrants in the United States. Arch Intern Med 1990;150(7):1514-6.
8. Sarfarty M, Rosenberg Z, Siegel J, et al. Intestinal parasites in immigrant children from Central America. West J Med 1983;139 (3):329-31.
9. Lerman D, Barrett-Connor E, Norcross W, et al. Intestinal parasites in asymptomatic adult Southeast Asian immigrants. J Fam Pract 1982;15(3):443-6.
10. Molina CD, Molina MM, Molina JM. Intestinal parasites in Southeast Asian refugees two years after immigration. Clin Med 1988;149(4):422-5.
11. Fritz MJ, Hedemark LL. Somali refugee health screening in Hennepin County. Minn Med 1998;81(4):43-7.
12. Centers for Disease Control and Pre-

vention. Blastocystis hominis infection fact sheet. 1999 Aug 15. Available from: http// www.cdc.gov/ncidod/dpd/parasites.
13. Cirioni O, Giacometti A, Drenaggi D, et al. Prevalence and clinical relevance of Blastocystis hominis in diverse patient cohorts. Eur J Epidemiol 1999;15(4):389-93.
14. Oldfield EC, Rodier GR, Gray GC. The endemic infectious diseases of Somalia. Clin Infect Dis 1993;16(S3):S132-157.
15. Castillo R, WaitzkinH, Ramirez R, Escobar JI. Somatization in primary care, with a focus on immigrants and refugees. Arch Fam Med 1995;4:637-46.
16. Muennig P, Pallin D, Sell RL, et al. The cost effectiveness of strategies for the treatment of intestinal parasites in immigrants. N Engl J Med 1999;340(10):773-9.

**Instructor (Annually Renewable) orAssistant Professor of Medicine (Clinical Track or Annually Renewable)**
**Division of General Internal Medicine**
**University of Minnesota Medical School**

The Department of Medicine is seeking general internists to serve as clinician/educators in Division of General Internal Medicine at the University of Minnesota at 50-100% effort. Clinical activity will be in the areas of ambulatory clinical practice, medical consultation, and in-patient attending. Educational responsibilities include teaching of medical students and housestaff, and include, but are not limited to clinical preceptorship, teaching conferences, and curriculum development. Applicants for this position will demonstrate excellence in patient care, and creativity and enthusiasm for medical education. Scholarship in clinical and educational activities are strongly encouraged and will be supported. Requirements include an MD degree and board eligibility or board certification in Internal Medicine; advanced training in General Internal Medicine or practice experience are highly desirable. A competitive salary and an intellectually exciting environment are offered. Send CV and 3 references to:

Robert Howe, MD, Interim Director, General Internal Medicine, University of Minnesota, MMC 741, 420 Delaware St. S.E., Minneapolis, MN 55455 Phone: 612/624-8984

***The University of Minnesota is an equal opportunity educator and employer***

Frog?



Alligator?

UNCOMMON WISDOM
COMMON SENSE℠

*Being able to quickly identify what lies beneath the surface is what separates an astute health care attorney from the rest. At Leonard, Street and Deinard, we carefully counsel our clients about the available options, possible risks, and likely outcomes on every legal matter. That's not only smart; it's good common sense.*

LEONARD
STREET
AND
DEINARD

MINNEAPOLIS · SAINT PAUL · MANKATO

(612) 335-1825

# Understanding and Surviving Medicare Audits

*Physicians should appeal Medicare audits, as many are based on flawed legal practices and evidence indicates that capitulation only increases the chance for a future review.*

David Glaser, J.D.

In the last few months, Medicare has begun an aggressive campaign of auditing physician practices in Minnesota. Many of these audits have targeted physicians who felt that they were "safe" because they chose only lower-level Evaluation and Management (E&M) Medicare codes. This article explores some of the criteria that Medicare uses to audit physicians and discusses how to distinguish between routine correspondence from Medicare and that which may foretell trouble. It also describes why it is advisable to challenge audit results, including why the carrier's assertion, "If it isn't written, it wasn't done," is not the law.

## *Audit 101*

Medicare audits fall into two broad categories: Prepayment audits, as the name suggests, review claims before Medicare pays the physician; postpayment audits analyze claims after Medicare reimburses the physician. In general, physicians should be more concerned with postpayment audits than prepayment audits. Approximately two years ago, the Health Care Financing Administration (HCFA), instructed Medicare carriers to randomly sample physician claims on a prepayment basis. These random reviews typically seek only one or two claims from a physician. These are the most common audits and also the least worrisome. Carriers may also conduct more extensive prepayment audits.

Physicians frequently ask whether they should review the prepayment audit documentation before submitting it to Medicare, and whether they should append the record or submit a corrected claim if that audit detects any deficiencies in the documentation. I strongly encourage physicians to review claims before submission. I also believe it is perfectly appropriate to include an addendum or supplemental information in the cover letter describing relevant information that is not readily apparent from the original note, as long as the new information is properly dated. However, I generally discourage physicians from downcoding a claim simply because the documentation does not meet the carriers' guidelines. As detailed below, documentation guidelines are, indeed, only guidelines. Therefore, if the code accu-rately describes the work performed, a physician should not voluntarily lower the code simply because of a documentation deficiency. Naturally, physicians who have concerns about information to be submitted should seek legal counsel before supplying any records.

If a carrier believes that a physician has a systemic billing problem, the carrier may place the physician on prepayment review, which requires the physician to submit documentation for every claim before Medicare will allow reimbursement. Prepayment review is a tremendous burden on the physician because the physician can no longer submit electronic claims. If the prepayment review involves documentation of hospital visits, the physician must obtain the records from the facility for each visit before submitting the claim. Obviously, this delays reimbursement and creates administrative headaches.

Both types of postpayment audits—comprehensive and focused—most commonly explore statistical aberrations. For example, carriers typically audit physicians who use a code much more frequently, or less frequently, than other physicians in that specialty throughout the state or the nation. Patient complaints can also trigger reviews.

In a focused medical audit, rather than recouping an overpayment, the carrier often informs the physician of the results in hopes of changing the physician's coding practices, although the carrier may choose to collect an overpayment or place the physician on prepayment review. In contrast, comprehensive medical reviews nearly always result in an overpayment assessment, making them the most significant type of audit.

## *Comprehensive Medical Reviews*

In a comprehensive medical review, the carrier reviews a sample of a physician's claims and uses that sample to calculate a projected overpayment. For example, a recent set of audits in Minnesota examined physicians who most frequently used CPT code 99213, a midlevel established

patient visit. As a means of lessening their workload, the Medicare carrier usually selects a very small sample of records in these audits, reviewing only 10 to 15 charts. The carrier uses the sample results to project an overpayment for the reviewed codes over a period of months or years. The carrier contacts the physician with the audit results, and indicates that the audit was too small to be statistically valid. This letter typically offers a physician a choice of three options for responding to an alleged overpayment. Under option one, the physician repays the assessment. Under option two, the carrier caps overpayment at the amount assessed in the letter, and the physician may submit evidence as to why the overpayment should be reversed. Under this option, the physician waives all rights of appeal; the physician must abide by the carrier's decision, no matter how arbitrary. Finally, under option three, the carrier conducts a statistically valid sample, and the physician retains all rights of appeal. Because the original audit reviewed a small number of claims, the second sample may result in either a higher or a lower projected overpayment.

Unfortunately, many physicians mistakenly believe that challenging an overpayment is much riskier than merely paying the original assessment. This fear stems from two misunderstandings. First, many physicians think that challenging a claim will only draw more attention to them. This worry ignores other compelling concerns. Medicare views capitulating to an audit as tantamount to admitting guilt. HCFA has instructed Medicare carriers that if they collect an overpayment from a physician, they should closely monitor that physician. This means that if a physician simply repays the overpayment with no appeal, the physician nearly guarantees a future audit. Moreover, succumbing to audits strongly encourages Medicare to perform future reviews because they are an easy revenue source, and they allow HCFA to claim that physicians overbill Medicare. In short, simply refunding the money unchallenged invites a return Medicare visit.

A second reason that physicians are reluctant to choose option three is that they believe that the statistically valid sample will likely result in a higher overpayment. However, the statistically valid sample is equally likely to reveal a lower overpayment. Physicians also worry that the broader sample may uncover additional problems. While that risk always exists, any widespread problem would have likely appeared in the original 10 or 15 charts. Therefore, undergoing the expanded review bears low additional risk.

## *Overpayment Assessments Often Flawed*

Physicians should challenge an overpayment assessment chiefly because in the overwhelming majority of audits, the carrier makes fundamental errors. For example, most carriers select sample sizes that are much smaller than those required by the government. Carriers also can misapply rules. For example, when conducting E&M reviews, the carrier is supposed to use both the 1995 and the 1997 Documentation Guidelines, and then choose the result that most benefits the physician. In most cases, the 1995 Guidelines favor the physician. In many recent reviews, Minnesota's carrier, like many carriers throughout the country, has relied exclusively on the 1997 Guidelines; hence, many physicians are improperly assessed for overpayment.* In these reviews, the carrier has also recouped overpayments in cases where the wrong physician's name appears on a claim, despite the fact that the Medicare Carriers Manual clearly states that such errors do not create an official overpayment.

Moreover, carriers often apply the improper legal standard when reviewing documentation. Carriers sometimes apply documentation guidelines as laws or rules. When conducting a review, carriers often say, "If it isn't written, it wasn't done." They use the documentation guidelines to downcode the claim to the level supported by the documentation. Legally, this is incorrect. When HCFA first introduced the documentation guidelines, it issued a question and answer sheet that explained that physicians do not have to comply with the guidelines. The first question was, "Are the documentation guidelines required?" The answer: No. The memo proceeded to explain that if Medicare conducts an audit and finds insufficient documentation, then the carrier should request additional information from the physician to determine whether the services were rendered as billed. While carriers generally disregard this instruction, the memo confirms that the level of the service the physician actually provides—not the amount of documentation—determines the code.

As a result, if a physician has performed the service that he or she has billed and simply has not fully documented the visit vis-à-vis documentation guidelines, the physician should appeal the overpayment. At the hearing, the physician can testify about the service provided by presenting evidence such as schedules, testimony from nurses or patients, production data, and other material demonstrating that the services were really performed.

It is easier than expected to appeal a carrier's audit findings. Because of high legal costs, many physicians hesitate to seek a hearing. However, the appeals process is less formal and less expensive than other litigation. At the initial fair hearing, physicians have the right to be represented by counsel or to represent themselves. National data suggest that at the fair hearing level, the defendant reverses the carrier more than half of the time. If the dispute involves $500 or more, a physician may then appeal to an administrative law judge. In an estimated 75 percent of cases, administrative law judges reverse at least some finding of overpayment.

If a physician works with counsel

* Minnesota has a new Medicare carrier, Wisconsin Physician Services, which replaces Minnesota's former carrier, United HealthCare. It is possible that Wisconsin Physician Services will not engage in such practices.

familiar with the process, legal costs for an appeal typically remain very low. In the universe of cases of which I am aware, while admittedly an unscientific sample, the appeal has, with only one exception, reduced the overpayment by substantially more than the cost of the challenge. (One exception was a $100 overpayment, where the physician chose to appeal on principle.)

## *Conclusion*

As long as Medicare believes that audits raise revenue and that these reviews get physicians to lower their coding, they will continue. Because mistakes pervade these audits, physicians should review all audit results with skepticism. In many cases, challenging an audit will benefit both the individual physician and the entire physician community. Finally, physicians facing an audit may wish to consider contacting someone at the Center for Physician Advocacy at the Minnesota Medical Association (888/662-6774) who can provide you with information about similar audits or referrals to outside counsel. The MMA meets frequently with the carrier, providing an opportunity to address any systemic issues raised by an audit, and can serve as a good clearinghouse for audit information. MM

*David Glaser is a shareholder in Fredrikson & Byron's Health Law Group and helped establish its Medicare Fraud and Compliance Group. He has represented clients in numerous Medicare appeals and has appeared before the Board of Medical Practice.*

**Physician Employment Opportunities Available at WINONA CLINIC, LTD.**

**Family Practice**

**General Internal Medicine**
**concentrated area of study in Cardiology or Gastroenterology is a plus, but NOT required*

**Orthopedic Surgery**

**Pediatrics**

Our staff of 37+ healthcare providers is looking forward to welcoming you, as you begin your practice at this thriving, independent, physician-owned, multispecialty clinic, located in a family-oriented community situated along the Mississippi River in the beautiful bluff country of southeastern MN.

*For additional information, contact:*
**Human Resources Director**
**Winona Clinic, Ltd.**
**420 East Sarnia Street**
**Winona, MN 55887**
**Phone: 507/457-7686**
**Fax: 507/457-7672**

MULTICARE ASSOCIATES OF THE TWIN CITIES

Multicare Associates of the Twin Cities, a multispecialty/multi-location clinic, located in the northern suburbs of Minneapolis/St. Paul, has available positions for BC/BE physicians in the following departments:

**Family Practice**
**Internal Medicine**
**OB/GYN**

Excellent salary/benefits package includes paid insurance, flexible benefits plan, 401K, profit sharing, continuing medical education. Shareholder status potential after one year.

Contact Jeannine Schlottman
Administrator
7675 Madison St. NE
Fridley, MN 55432
763/785-3338
www.multicare-assoc.com

Clear blue skies, fresh air, wide-open spaces and clean lakes await you.



MeritCare Medical Group is seeking talented, energetic physicians to join thriving, diverse practices.

MeritCare Health System is the premiere health system between Minneapolis and Seattle. MeritCare Medical Group is a 350-physician, multispecialty group with a strong primary care base and MeritCare Hospital is a 380-bed tertiary/trauma facility. Fargo-Moorhead, recently named an "All American City, is a tri-college community of 160,000 with excellent public and parochial schools and a park department that provides year-round activities for all age groups.

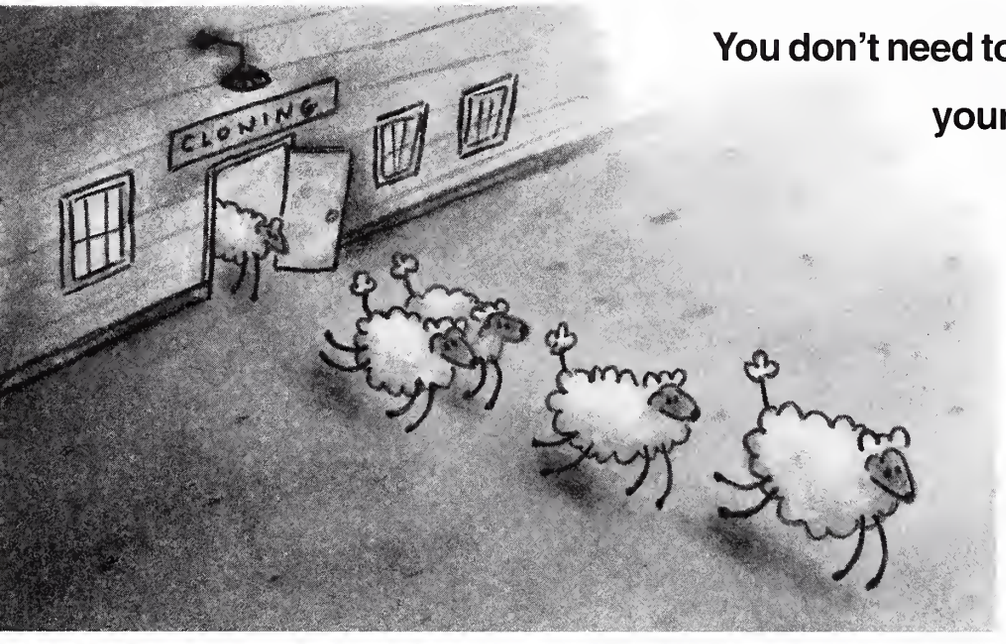
**We are seeking BC/BE physicians in the following specialties:**
- Adult Psychiatry
- Anesthesiology
- Cardiology & Electrophysiology
- Child/Adolescent Psychologist (Detroit Lakes, MN)
- Child/Adolescent Psychiatry
- Critical Care - Intensivist
- Dermatology
- Eating Disorders Clinician (PhD, PsyD or Masters prepared)
- ENT
- Family Practice (Fargo, ND; E. Grand Forks, MN)
- Gastroenerology
- General Surgery (Valley City, ND)
- Hematology/Oncology
- Internal Medicine (Hospitalist)
- Interventional Radiology
- Neonatology
- Nephrology
- Neuropsychology
- Obstetrics/Gynecology (Bemidgi)
- Optometry (Mayville, ND)
- Orthopaedics (Fargo & Jamestown, ND)
- Pediatrics
- Radiation/Oncology
- Reproductive Endocrinology
- Rheumatology
- Walk - in Services (Fargo, ND)

MeritCare Medical Group
EOE/AA Employer

**Contact Jill Gilleshammer,**
**Human Resources, Physician Recruiting**
**737 Broadway, Fargo, ND 58123**
**or call 800/437-4010, ext. 2338 or fax vitae to**
**701/234-2316. Visit our web site at www.meritcare.com**
Not a J1 Visa Waiver. This is not an HPSA site.

# Searching for ways to put more time back into your day?

# MSBC can help.




**You don't need to resort to cloning yourself to regain control of your time commitments.**

Your colleagues have honored you by electing you to serve as an officer of your society. They respect your professionalism and leadership skills. You've got the ideas and ambition it takes to make your society an integral part of your profession. However, the thought of you and your office staff taking time away from patients to manage the day-to-day activities of your society somehow takes away the thrill of what should be a very exciting time for you.

Management Services By Choice (MSBC), a program of the Minnesota Medical Association, can help. Our professional staff will work directly with you to expand, improve, or develop new programs to best serve your membership.

For more information, call 612/378-1875 or 800/342-5662, or visit our Web site at www.mnmed.org/MSBC.

**MSBC offers a wide range of affordable, efficient services designed specifically to meet the administrative needs of medical societies, large and small.**

MSBC
MANAGEMENT SERVICES BY CHOICE
A PROGRAM SPONSORED BY THE MMA

## ANNOUNCEMENTS



### MMAA Offers Thailand Trip

The Minnesota Medical Association Alliance will host a trip to Bangkok, Thailand, on February 17 through 25, 2001. The tour price, including air fare, is $1,989 per person with double room occupancy.

The deadline to register is December 29, 2000. To sign up, or for more information, please call New Departures at 612/305-0025 or 800/853-1880. Send e-mail inquiries to smarttrav@pclink.com.

### Prepare for Code Season in Minnesota

On January 14, 2001, mandatory 10-digit dialing will begin for the western suburbs of the Twin Cities. Communities north of Interstate 394 will have the new 763 area code. Communities south of the interstate will have the new 952 area code. Residents within each city will have a common area code. The area code for Minneapolis will remain 612.

# MMA Will Ask AMA to Oppose Pain Relief Promotion Act

Minnesota Medical Association delegates to the Interim Meeting of the American Medical Association House of Delegates will ask the AMA to change its position on the Pain Relief Promotion Act, which it currently supports. The Interim Meeting will take place December 3 through 6 in Orlando, Florida.

At the MMA Annual Meeting, held last September in Duluth, the House of Delegates voted to oppose provisions of the federal Pain Relief Promotion Act (PRPA) that would insert the federal government into the practice of medicine and decisions about pain management and palliative care. The MMA is concerned that this legislation would have a chilling effect on physicians prescribing medication to relieve pain for terminally ill patients.

In addition to this resolution, the MMA delegation will carry eight others, which call for AMA action on a range of topics.

Citing reports that show U.S. seniors who lack prescription drug coverage may pay much higher prices than Canadian or Mexican citizens pay for the same drugs, the MMA will ask the AMA to develop a plan for affordable pharmaceutical pricing for all Americans. The resolution further calls on the AMA to develop legislation to promote this plan.

The MMA will ask the AMA to work to eliminate carve-outs that prevent mental health and chemical dependency benefits from being administered like other health care services. Carve-outs may reinforce stigmatization and may result in decreased resources allocated for these benefits.

MMA delegates will ask the AMA to lobby Congress to amend current law to prohibit physicians from entering into global risk sharing contracts. The resolution addresses the concern that physicians who enter risk sharing agreements for services outside their control are put in an unacceptable ethical position. Physicians may also experience increased liability risk if referral incentives give the appearance that they are acting in bad faith toward patients.

The MMA will also ask the AMA to take the following actions: (1) modify its policies to state that human tissues may not be used for medical education without informed consent; (2) advocate for improved reimbursement to hospitals for costs associated with production of safe blood products; (3) educate physicians about the proper disposal of mercury-containing equipment; (4) encourage the Consumer Products Safety Commission to study the impact of noisy toys on hearing loss among children; and (5) urge the Health Care Financing Administration to adopt a less punitive nursing facility survey system that is more oriented toward improving patient care in these facilities.

MMA delegates to the Interim Meeting are: Chair Audrey Nelson, M.D.; Thomas L. Peyla, M.D., Frank J. Indihar, M.D., Carolyn McKay, M.D., Lyle Munneke, M.D., and Andrew Smith, M.D. Alternate delegates are: Raymond Christensen, M.D., Kenneth Crabb, M.D., Anthony Jaspers, M.D., Benjamin Whitten, M.D., Paul Matson, M.D., Sally Trippel, M.D., and John Van Etta, M.D. ■

# VIEWPOINT

***Blanton Bessinger, M.D.***
*MMA President*



## "Heavier than Air Flying Machines are Impossible"

Since the MMA was founded in 1853, it has been recognized as an organization that champions the needs of patients and physicians. Despite the changes we've seen in medicine and the changes yet to come, we must never forget our strengths and our purpose. At the same time, we must be able to adapt so we can continue to provide the best care for our patients and our profession.

Consider how much has changed. Twenty-five years ago medicine was a calling, not just a career choice. Physicians had a "Dr. Welby" image. They were respected, trusted, and considered the main source of medical information. Autonomy was the rule. No wonder physicians had a high degree of self esteem and job satisfaction, not to mention financial security.

Now the medical field is much more complex and dependent on high tech diagnostics. Managed care has an impact on finances and referral patterns. The health care system is underfinanced. Patients turn to self-help literature, the Internet, and direct-to-consumer advertising for their medical information. We have so much to do, so little time. We experience decreased job satisfaction and financial insecurity.

Predictions point to even more changes in the next 25 years. We will have to be open to new ideas if we are to continue our role of leadership and influence in Minnesota. How can we recognize innovations that will lead to major changes? Certainly not by responding like Ken Olson, the digital equipment founder, who said as recently as 1977, "There is no reason for any individual to have a computer in their home."

Clearly we cannot remain mired in old ways of thinking if we are to help shape the future. We must suspend our preconceptions long enough to look at problems from other angles. We physicians have developed skills that we use with our patients—a caring attitude, listening to others, recommending solutions—that will stand us in good stead as we react to new ideas.

In this changing medical environment, our purpose—advocating for patients and our profession—remains the same. We often underestimate our potential clout. When legislators hear from a physician in their district, they listen. Real life stories from our practice are especially powerful. We have to make repeated contacts; politics belongs to the persistent.

Through our MMA, we will continue our advocacy for the most vulnerable—victims of family violence, the chronically ill, and children. As a pediatrician, I am particularly concerned about the new morbidity for children—poverty, hunger, violence, and lack of health insurance. In examinations we should ask families about these issues.

One in five American children lives in poverty. Mexico is the only other country among the "developed nations" with a higher incidence of child poverty. Even though Minnesota is a national leader in ensuring children have health coverage, there are more than 50,000 uninsured children in our state. As individuals we feel powerless to change these statistics. As members of the MMA, we can influence policy makers and help shape our changing medical landscape.

I look forward to serving as your president, working with you and MMA officers and staff, learning, changing, and adapting to the needs of our patients and our profession.

# Silversmith is Chair-Elect of Administrative Uniformity Committee

Janet Silversmith, MMA director of health economics and policy analysis, has been named chair-elect of the statewide Administrative Uniformity Committee (AUC). Ruth Ann Will, of Medica, is the committee's 2001 chair.



*Janet Silversmith, MMA director of health economics and policy analysis*

The AUC is a broad-based group representing public and private health care payers, hospitals, health care providers, and state agencies. The group's mission is to develop agreement among Minnesota payers and providers on standardized administrative processes when adopting those processes will reduce administrative costs.

The committee creates technical advisory groups (TAGs) to examine complex topics, including data definitions, explanations of benefits, Health Insurance Portability and Accountability Act (HIPAA) rules, and ambulatory payment classifications

One TAG is currently working to develop uniform standards for interest payment procedures on late claims. A new law, which takes effect January 1, 2001, requires health plans and third-party administrators to pay or deny clean claims submitted on or after that date within 30 days or pay 1.5 percent monthly interest.

Among its other recent projects, the AUC published an updated manual explaining Minnesota standards for use of the Health Care Financing Administration 1500 claims form. The committee also reviewed regulations mandated by HIPAA and submitted comments to the U.S. Department of Health and Human Services.

The AUC acts as a consulting body to various public and private entities, but does not formally report to any organization and is not a statutory committee. ■

# Dangerous Behaviors Linked to Youth Gambling

The American Academy of Pediatrics (AAP) and the North American Training Institute (NATI) are collaborating to address the growing problem of youth gambling and the dangerous behaviors associated with it.

The AAP recently published the brochure, "Gambling: Not a Safe Thrill," to help adults, including the medical community, identify the warning signs of youth problem gambling. The NATI, which provides educational curricula, training, and prevention program development on underage gambling, contributed to the brochure.

Although gambling is illegal for anyone under 18 in most jurisdictions, research suggests that young people are increasingly participating in betting activities. Some of these activities include playing cards or dice games for money, playing games of skill—such as pool or basketball—buying lottery tickets and scratch cards, playing casino- and arcade-type games, placing bets on sports events, and gambling on the Internet.

A significant percentage of underage gamblers develop problems associated with their betting behavior.

Frank Ball, director of Alcohol and Gambling Enforcement at the Minnesota Department of Public Safety, says kids may be drawn in by gambling's competitive, exciting aspects. "Gambling may seem like a sport at first," says Ball.

Although illegal gambling is sometimes perceived as a victimless crime, juveniles can get into trouble quickly through reckless betting. "People who can't pay illegal gambling debts often become victims of extortion and physical assaults," says Ball. "Juvenile gambling also has a high correlation with illegal drug use."

Teen gamblers are not easy to identify, according to the AAP brochure. They may be smart, energetic, and highly motivated. Warning signs that a young person may be gambling include the presence of items such as lottery tickets, betting sheets, and casino sheets; excessive interest in television sports and the outcome of sports events; and excessively checking the Internet.

Compulsive gamblers may undergo different phases, which in-

*GAMBLING cont. on page 36*

*GAMBLING from p. 35*

clude winning, losing, and becoming desperate. In the desperation phase, compulsive youth gamblers may experience severe mood swings, school failure, and may even attempt suicide.

"Identifying a gambling problem early is a key to successful intervention and treatment," says Elizabeth M. George, NATI executive director. "We hope parents who believe their child may have a gambling problem will discuss it with their pediatrician."

To receive copies of "Gambling: Not a Safe Thrill," or to obtain more information about youth gambling, please call NATI at 888/989-9234.

## MMA Day at the Capitol Legislative Summit 2001

Wednesday, February 7, 11 a.m. to 7:30 p.m., Radisson City Center in St. Paul

MMA
MINNESOTA MEDICAL ASSOCIATION
Day at the Capitol
LEGISLATIVE ADVOCACY SUMMIT

Learn the political skills you need to make a difference! Sit in on committee hearings. Meet your legislators. Talk political strategy over lunch. Mingle with colleagues and lawmakers at an evening reception.

Participants in previous MMA Legislative Summits commented: "Terrific program!" "Impressive speakers!" "Great question-and-answer session!

This year's program is all-new. Even if you were at the 2000 Legislative Summit, come to brush up your skills and learn new techniques.

Make your voice heard!
Mark February 7 on your calendar!

# BCBSM Will Reimburse Physicians for Smoking Cessation Treatment

People who want to quit smoking no longer have to rely on will power and an endless supply of hard candy to help them break the habit. Some health plans are developing programs to help enrollees with the difficult task of quitting smoking, allowing them to reap the benefits of better health.

Last spring, Blue Cross and Blue Shield of Minnesota (BCBSM) introduced a new medical policy that recognizes tobacco use as a chronic illness that needs medical treatment.

Under this program, Blue Cross members can make appointments with their physicians specifically to get help with smoking cessation. Blue Cross will reimburse physicians for cessation counseling office visits as part of its members' existing coverage for clinic visits. It also provides a prescription benefit to its fully-insured members to cover the costs of the nicotine patch, nicotine gum, and Zyban.

Before this policy was implemented, physicians were asked to counsel patients to quit smoking during clinic visits for other purposes, such as treatment for another illness or as part of a routine preventive exam.

Paul Sanders, M.D., Minnesota Medical Association CEO, applauds Blue Cross for the policy. "It allows physicians and their patients who smoke to focus their attention on treating the serious illness of smoking. More importantly, it is an important tool to help smokers quit and prevent all the illnesses caused by tobacco use."

In addition to reimbursing physicians for cessation counseling office visits, Blue Cross launched a program in July to provide telephone counseling to help smokers quit.

The telephone counseling program is geared to all smokers, not just those who feel ready to quit.

To enroll, smokers call a toll-free number and talk with a cessation specialist. The specialist enters information about the smokers' concerns, motivations, and interest in quitting into a computerized system. Smokers receive individualized advice over the phone, including customized strategies to help them move toward successful quitting. During the next six months, specialists contact smokers three more times. Participants can call at any time with questions or for more support.

Blue Cross is working to reduce tobacco use among its members by 30 percent in 10 years. It is fighting for regulatory approval to invest its tobacco lawsuit settlement in programs for tobacco reduction.

# NEWS DIGEST

*People and places making medical news*



## People & Places

University of Minnesota professor of pediatrics **John E. Wagner, M.D.,** has been named holder of the **Albert D. and Eva J. Corneia Chair.** Wagner, an expert in unrelated donor bone marrow and umbilical cord blood transplantation, is scientific director of clinical research for the university's **Blood and Marrow Transplant Program** and the **Stem Cell Institute.** He performed the world's first umbilical cord blood transplant for leukemia.

The new president of the **Joint Council of Allergy, Asthma, and Immunology (JCAAI)** is **David F. Graft, M.D.,** chair since 1987 of **Asthma and Allergic Diseases** at **Park Nicollet Clinic.** The JCAAI represents approximately 4,500 allergists and immunologists in the United States.

**Unity Hospital's** annual **William J. Carr Award** has been given to anesthesiologist and MMA member **John S. Rydberg, M.D.** The award recognizes excellence in clinical skills as well as service to Unity Hospital, organized medicine, and the greater community.

**Minnesota Healthcare Network, LLC,** in Bloomington has appointed **Mark Fisher** chief executive officer. Fisher, who succeeds retiring **Douglas Shaw,** is a fellow in the **American College of Medical Practice Executives.**

**Kathy Brooks, M.D.,** will join **Wisconsin Physician Services,** Minnesota's Medicare Part B carrier, in early January as its new medical director. Brooks has been a consultant to the **Department of Human Services,** is a family physician and MMA member, and was a Bush fellow.

Pediatrician **Ronald Glasser, M.D.,** recently appeared on the Massachusetts television program the "Massachusetts School of Law Educational Forum." Glasser, an opponent of HMOs, is the author of "The Medicine Wars," which details HMO problems and draws analogies between HMO failings and the management of the Vietnam War.

The **Blue Cross and Blue Shield Foundation** has awarded the **Minnesota 4-H** program a $40,000 one-year planning grant to generate antismoking efforts among youths aged 5 to 18. Money will be used to plan activities that relate to the prevention and reduction of tobacco use among Minnesota youths.

The **National Rural Health Resource Center** in Duluth has received a $500,000 contract from the **Federal Office of Rural Health Policy** to provide technical assistance, education, and support to grantees of the **Medicare Rural Hospital Flexibility Program (Flex Program).** The Flex Program attempts to protect small, rural hospitals by authorizing their designation as critical access hospitals, which focus on primary care services and have a limited number of acute care beds.

St. Paul's **Regions Hospital** has opened an addition that will house new heart, birth, surgery, and digestive care centers, and a new 18-bed Surgical Intensive Care Unit. The addition also has a new main entrance adjoining a three-story atrium with elevators.

**Blue Cross Blue Shield of Minnesota** has awarded a $20,000 grant to **Hearth Connection,** a new nonprofit organization working to improve health care, treatment, support services, and housing for the homeless. Hearth Connection plans to serve 1,000 homeless families over the next five years.

The FDA has approved **Gillette Children's Specialty Healthcare's CranioCap,™** a custom-made brace or helmet for the skull used to treat deformational plagiocephaly (misshapen head). The condition occurs in roughly 1 of every 300 babies and results from intrauterine pressure or as a result of spending extended time in one position, such as sitting in a car seat. Some cases have recently been attributed to the "Back to Sleep" campaign, in which parents are advised to keep infants on their backs while they sleep to prevent SIDS. ⇨

# Office confusion?



# Office Depot and MMBR can help.

## The Office Supply Program

Minnesota Medical Business Resources and Office Depot are pleased to offer the following special program for members of the Minnesota Medical Association and their clinics.

The Office Supply Program includes:

- Up to 80% off list price on the items most frequently ordered by medical clinics.
- Average of 45% off list price on all other stocked items.
- 1150 items of furniture available for next day delivery.
- Easy ordering via Fax or Internet—customized forms developed for your clinics based upon frequently ordered items.
- Retail market pricing on electronics, business machines and software.
- FREE next business day delivery to all of Minnesota.
- Retail store purchasing cards for your emergency needs, copies, specials. *Receive your discounted MMBR pricing at our retail stores.*
- Quarterly rebate of 3% on stocked item purchases.

To establish an account or if you have questions, please contact:


**Brad Broman**
**Account Manager**
**email: bbroman@officedepot.com**

**Susan Costa**
**Service Consultant**
**email: scosta@officedepot.com**

**Direct line: 763-513-4024 ◆ Outstate: 800-392-4777 x4024**


Office DEPOT®
Business Services Division

MMBR
Minnesota Medical Business Resources
Owned By MMA & HMS

# Research & Innovations



### High Systolic Blood Pressure Linked to Stroke

Mayo Clinic researchers, including cardiologist **Bijoy Khandheria, M.D.**, have found that an elevated systolic reading (140 or above) has been associated with an increased risk for stroke. A high systolic reading was linked with abnormal deposits on arterial walls, which, if broken off, can become lodged in the brain and result in stroke. The study was published in the October 24, 2000, issue of *Circulation*,

### Valsartan Mitigates Congestive Heart Failure

A **University of Minnesota** team led by **Jay Cohn, M.D.**, has discovered that valsartan (trade name Diovan) reduced hospitalizations by 27.5 percent over a two-year period and improved quality of life (e.g. less fatigue, sleeping, or eating difficulties) for those with congestive heart failure. The study, which was published in a November issue of *Circulation*, indicates that the drug works by blocking the hormone angiotensin II, which is believed to aggravate congestive heart failure.

### Viagra Contraindicated with Nitrates

**Mayo Clinic** researcher **Bijoy Khandheria, M.D.**, and colleagues have confirmed that the impotency drug Viagra should not be used in combination with nitrates. Physicians have recommended that patients with heart disease take nitroglycerine in the minutes prior to intercourse to improve blood flow to the heart. However, the study, which was published in the November 14, 2000, *Circulation*, confirmed that nitroglycerine combined with Viagra could lead to a significant, sometimes lethal, drop in blood pressure and blood flow to the heart.

### Nicotine Patches, Gum May Be Linked with Carcinogen

**University of Minnesota** researchers, including **Stephen Hecht, M.D.**, report that nicotine gum and patches may be linked to NNK, a lung cancer carcinogen. Pseudooxynicotine, a direct precursor of NNK, was detected in the bloodstream of mammals given the antismoking aids. When exposed to nitrites, pseudooxynicotine may be converted to NNK. Hecht cautions that the treatments not be abandoned as the benefits of smoking cessation outweigh the risks.

### Patient-Friendly Test for Colon Cancer Shows Promise

Researchers led by **Mayo Clinic** scientist **David Ahlquist, M.D.**, report developing a DNA test for colon cancer that relies on a stool sample rather than an internal exam. The test, which may be available to the public within a few years, proved 91 percent reliable in detecting cases of colon cancer and 73 percent reliable in finding precancerous polyps. Patients mail in stool samples to labs rather than undergo a colonoscopy, an invasive, in-hospital procedure. The new test detects abnormal DNA shed into the stool from the surface of colon tumors and precancerous polyps. The study was published in the November 25, 2000, issue of *Gastroenterology*.

# Socioeconomics



### Premiums Expected to Increase by Double Digits

Health insurance premiums will rise nationwide in 2001 because of increasing health care costs related to new technologies, the high cost of pharmaceuticals, an aging population, and demands for better services. In Minnesota, **HealthPartners** will increase premiums between 12 and 15 percent; **Blue Cross and Blue Shield** will raise rates 15–16 percent; and **Medica** expects premium changes that range from reductions to a 20 percent increase.

### Business Group to Fight Medical Errors

The **Leapfrog Group**, a purchasing coalition of 60 of the nation's largest corporations that includes such companies as **3M, Target Corp., and Northwest Airlines Inc.**, has launched an effort to reduce medical errors by directing business to hospitals that conform with the group's quality standards. Hospitals will be encouraged to install computerized prescription-drug ordering systems and hire board-certified critical care specialists to manage intensive-care units. Leapfrog will also refer patients needing complex procedures to hospitals that perform them often.

# Rates, Trends & Data



### AIDS Spreads among Native Americans

Native Americans account for a disproportionately large percentage of AIDS cases in the United States, according to a report by U.S. Surgeon General David Satcher, M.D. Six percent of people with HIV in the United States are Native Americans and Alaska Natives, who make up less than 1 percent of the total population. Minnesota has an HIV-infection rate of 2 percent among Indians, who comprise 1.2 percent of the state's total population. This rate is nearly twice that for Asians and four times that for Caucasians.

### Marijuana Use Down, Ecstasy Popular among Teens

For the third straight year, marijuana use among junior and senior high school students dropped nationwide. An annual report by the nonprofit group Partnership for a Drug-Free America shows the use marijuana fell from 41 percent in 1999 to 40 percent in 2000. In contrast, use of the club drug Ecstasy rose from 7 percent in 1999 to 10 percent in 2000. The study also found that the number of teens exposed to antidrug advertising daily has risen from 32 percent in 1998 to 49 percent in 2000.

### AIDS Toll Horrific in Africa, Eastern Europe, and Asia

The World Health Organization estimates there will be 5.3 million new cases of HIV infection this year, and 3 million people will die from AIDS. Sub-Saharan Africa, where an estimated 25.3 million people will have HIV/AIDS by the end of this year, accounts for 72 percent of the new infections and 80 percent of the deaths worldwide. AIDS cases in the former Soviet bloc are expected to rise by 60 percent this year to 700,000. In Asia and the Pacific, about 6.4 million people are HIV-positive. WHO expects 45,000 new cases of AIDS in North America.

### InterStudy Predicts 75 HMOs Likely to Quit Business

InterStudy Publications of St. Paul has released a report identifying 75 HMOs likely to cease operating next year. In 1999, 83 HMOs ceased to operate nationwide. The report suggests the most troubled HMOs have substandard enrollments, administrative expense ratios, profit margins, liquidity, and speed of payments to providers. They also tend to be new entrants in smaller markets.

NATI onlinelearning

**Log on to the BEST in ONLINE TRAINING**

For more than a decade, providing accredited courses on compulsive-gambling

Log on to

**www.nati.org**

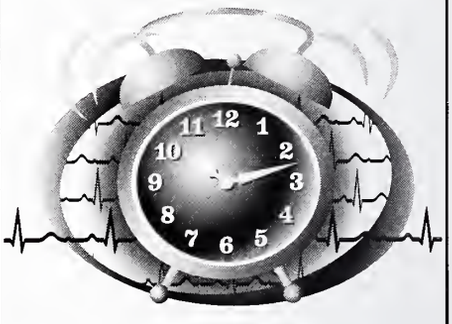
Phone: 1-218-722-1503
Email: info@nati.org

American Heart Association®
Fighting Heart Disease and Stroke

**Race Against Time**

Without a life-saving shock from an AED, a device that can help restore the heart's normal rhythm, cardiac arrest victims' chances of survival drop 10 percent per minute.

To learn more about AEDs (automated external defibrillators) and CPR courses in your community, call 1-877-AHA-4CPR.



**HeartStroke Briefs**

For more information, call 1-800-AHA-USA1 or visit www.americanheart.org

9/2000 10-5202

# For complete healthcare Internet services, there's just one name to remember




THE INTERNET RESOURCE DESIGNED EXCLUSIVELY FOR HEALTHCARE PROFESSIONALS

## A total online service featuring healthcare resources, helpful links and professional services

In your business, quick access to information is critical. The MMIC Medical Services Portal is a medical provider's best choice for complete online services, providing physician practices with the tools and technology needed to remain strong and competitive in today's rapidly changing marketplace. MMICmedportal provides you with online business tools, technology and information system solutions as well as clinical and practice management resources, local news and weather plus a nationwide physician directory. Whether you need to search for possible side effects of the latest FDA approved drug, obtain reference material on a rare congenital condition or contact a medical colleague from across the nation, you can count on MMICmedportal.

## Save time and improve your efficiency

Chances are you already rely on the Internet at home. Why not make the Internet a part of your office as well? Brought to you by Midwest Medical Insurance Company, MMICmedportal was designed by medical professionals for medical professionals...your assurance of reliable information you'll find at your fingertips.

***To learn more about how MMICmedportal can work for you, call 1-800-328-5532 or visit us at www.mmicmedportal.com***

The MMICmedportal is a service of the Midwest Medical Group of Companies

MMIC™ medportal

*Progressive Internet Services for Healthcare Professionals*

# The Impact of the 1997 Balanced Budget Act on Medicare

*For the moment, the Balanced Budget Act of 1997 and its refinement in 1999 have left Medicare fiscally sound, but beneficiaries and providers alike have experienced some hardship and await future Congressional action.*

Janet Silversmith, M.A.

A Medicare prescription drug benefit, which nearly every political candidate promised during the 2000 elections, would dramatically expand the Medicare program, both in terms of cost and new benefits. Serious discussion about such an expansion makes it hard to believe that just three years ago Medicare's dire financial health helped prompt Congress to enact the most drastic and dramatic changes to the program since its inception more than 30 years ago. The Medicare changes incorporated in the Balanced Budget Act of 1997 (BBA) were initially projected to save the program up to $115 billion over the five-year period between 1998 and 2002.[1] With nearly $100 billion of the cost savings expected to come in the form of reduced payments, as well as dramatic changes in some payment systems, Minnesota physicians were among those voicing concerns about the ability of the program to continue meeting the needs of Medicare beneficiaries. At the 1999 annual meeting of the Minnesota Medical Association (MMA), the House of Delegates adopted policy calling on the MMA to "... study and evaluate those aspects of the Balanced Budget Act that may erode the health care infrastructure and potentially reduce access to care." This article briefly describes some of the most significant changes to the Medicare program as a result of the BBA, as well as the Balanced Budget Refinement Act of 1999 (BBRA), and considers the effect of those changes to date.

## The Road to the 1997 BBA

Many of the financial and demographic factors leading up to the passage of the BBA are well known but worth reconsidering. The Medicare Payment Advisory Commission (MedPAC), the independent federal body mandated by law to advise Congress on issues affecting the Medicare program, identified four principal reasons for adopting the BBA's various policy changes:

1. **Increasing fiscal pressure** caused primarily by payment growth and demographic variables. On the eve of the BBA, Medicare expenses were growing by more than 8 percent per year, and expenses for some services, such as home health care, had an annual growth rate of more than 30 percent.[1] In addition, the Hospital Insurance Trust Fund, which finances Medicare Part A primarily through the payroll tax, was projected to be exhausted by 2001. These factors, coupled with the fact that Medicare was consuming an increasing portion of the overall federal budget—doubling since 1975 to 11.3 percent of the total budget in 1995—motivated policymakers.[1]

2. **Concern about Medicare overpayments.** National figures suggested that Medicare was overpaying providers in two main areas—post-acute care (e.g., home health and skilled nursing facilities [SNFs]) and Medicare man-

## The Give-and-Take of Medicare Reform

The Balanced Budget Act of 1997 (BBA) significantly altered Medicare payment policies for hospitals, home health care agencies, skilled nursing facilities, Medicare+Choice plans, and physicians. The changes were most pronounced in the home health and skilled nursing sectors as reimbursement switched from a cost-based system to a prospective payment system. Hospital payment changes, which accounted for nearly one-third of the savings generated by the BBA, caused hospitals to respond to the reductions with an organized outcry to Congress seeking amelioration. Physicians, although spared from the dramatic cuts experienced by other Medicare providers, were also affected. The implementation of practice-expense relative value units represented the largest change in Medicare physician payment policy since the inception of the resource-based relative value scale in 1992. The Balanced Budget Refinement Act of 1999 mitigated some of the financial impacts of the BBA, and additional "giveback" legislation is being debated by Congress, but the long-term effects of the BBA will be monitored for years to come.

aged care. Home health expenditures increased from $3.5 billion in 1990 to nearly $17 billion in 1996, and during the same period SNF payments increased from $2.5 billion to over $11 billion.[1] The hospital inpatient prospective payment system (the use of diagnostic-related groups, or DRGs) that was introduced in 1983 and its incentive to shift care out of hospitals explains part, but likely not all, of the increase in home health and SNF expenditures. Additionally, Medicare managed health care plans appeared to be contributing to program cost increases rather than controlling costs, as was originally intended.

3. **A desire to introduce more rational payment methods.** The advantages that the Medicare program gained through the establishment of DRGs for hospital inpatient services in 1983, and the creation of the resource-based relative value scale (RBRVS)[i] for physician services in 1992, suggested that similar efficiencies could be achieved for services being reimbursed under a cost-based system, such as home health, SNFs, hospital outpatient, and rehabilitation and long-term hospital care (not currently included in the hospital DRG system).

4. **An interest in offering beneficiaries greater choice.** Prior to the BBA, the Medicare program consisted primarily of the traditional fee-for-service program (covering well over 80 percent of beneficiaries) and the Medicare managed care or HMO program,[ii] which was experiencing enrollment increases.[1] A payment scheme that resulted in dramatic geographic differences in both amounts and benefits paid and provided to beneficiaries plagued the HMO program. Another practical factor that has been cited for the adoption of Medicare policy changes was the Republican majority in both the U.S. House of Representatives and the U.S. Senate and their determination to balance the federal budget by 2002.[2] After President Clinton's veto of the 1995 budget reconciliation bill, political will and policy rationale finally connected.

## *Major Provisions: BBA and BBRA*

On August 5, 1997, the BBA was signed into law. Expected to generate savings of $112 billion to $170 billion over five years and expand the solvency of the Hospital Insurance Trust Fund through 2007, the BBA included changes for providers and beneficiaries alike but was not considered a long-term solution to the fundamental problems facing the Medicare program. In recognition of that fact, the BBA created the National Bipartisan Commission on the Future of Medicare, which was required to report by March 1, 1999, on its recommendations to protect and preserve the Medicare program. But before Congress considered any systemic policy options (and absent agreement among commission members), and even before full BBA implementation, hospitals, home health care agencies, and SNFs, in particular, felt the impact of the BBA. In November 1999, Congress passed the BBRA, restoring over five years (2000–2004) approximately $16 billion to the Medicare program.[1]

The BBA legislation included approximately 240 Medicare changes.[3] Although these changes affected many Medicare services, this article briefly describes the major policy changes from both the BBA and the BBRA in three areas: physician payment; inpatient hospital payment; and post-acute care services payment, specifically home health care and SNFs. The new Medicare+Choice provision (or Part C of the Medicare program) was arguably one of the most fundamental structural changes to the Medicare program enacted by the BBA. (Watch for the February 2001 issue of *Minnesota Medicine* for more on this topic.)

### Physician Services

The BBA changes in physician payment (estimated to account for $5 billion to $6 billion in Medicare savings over the five years 1998–2002), although significant, represented only a fraction of the nearly $100 billion in total savings accounted for by the BBA's provider payment reductions or other changes (see Table 1). The BBA's most significant provisions were the creation and implementation on January 1, 1998, of a single conversion factor for all services (replacing the existing three conversion factors for surgical, nonsurgical, and primary care services); the establishment of a specific timeline for

### *Acronyms*

AAMC – American Association of Medical Colleges
BBA – Balanced Budget Act of 1997
BBRA – Balanced Budget Refinement Act of 1999
DME – direct medical education
DRG – diagnosis-related group
DSH – disproportionate share
GAO – General Accounting Office
GDP – gross domestic product
GME – graduate medical education
HCFA – Health Care Financing Administration
IMEA – indirect medical education adjustment
IPS – interim payment system
MB – market basket
MedPAC – Medicare Payment Advisory Commission
PPS – prospective payment system
RBRVS – resource-based relative value scale
RUG – resource utilization group
SGR – sustainable growth rate system
SNF – skilled nursing facility
VPS – volume performance standard

[i]The RBRVS provides payment for physician services based on the sum of the relative values for physicians' work, practice expense, and professional liability insurance. The values are adjusted for differences in geographic locality and multiplied by a conversion factor to create a payment amount.

[ii]The Medicare managed care program also consisted of a smaller HMO cost contract program.

implementation of resource-based practice expense relative values; and the creation of a new system for updating physician payments—the sustainable growth rate system (SGR).

When the RBRVS for physician payments was implemented in 1992, the practice expense values were based on the 1991 average service charge allowed, adjusted by the proportion of total physician revenues that practice expenses accounted for among the specialties providing that service. These values were heavily criticized because they did not reflect differences in actual resource use. In 1994, Congress passed legislation requiring the implementation of resource-based practice expense relative values beginning in 1998. On June 18, 1997, the Health Care Financing Administration (HCFA) published a proposed rule, to take effect January 1998, that defined the proposed resource-based practice expense relative values. The highly controversial proposal included significant changes in payments for physicians depending on specialty and generally resulted in higher payments for office-based services than for hospital-based procedures. In response to physician concerns with the proposal, the BBA included provisions to revise the values, delay implementation until 1999, and then phase in the values over four years. Considering that the practice expense component amounts to approximately $20 billion a year and 41 percent of payments under Medicare's total fee schedule, changes to the values are bound to dramatically affect physicians.[4]

Table 1

*Impact of BBA and BBRA on Physician Services*

| BBA | BBRA |
|---|---|
| Established a single conversion factor effective January 1, 1998, (replacing 3 conversion factors for primary care, surgical, and nonsurgical services). | Estimate of next year's conversion factor to be provided annually. |
| Reformed resource-based practice expense relative value units, delayed implementation by 1 year (until 1999), then phased in over 4 years; provided $390 million in 1998 for a "down payment" for primary care services due to delay in implementation. Called for establishment of resource-based malpractice expense relative value units in 2000. | Required development of a process for considering supplemental practice expense data. |
| Medicare Volume Performance Standard replaced by Sustainable Growth Rate (SGR) system for update calculation; updates to be based on changes in GDP, rather than on historical volume and intensity; updates limited to -7 to +3 % of Medicare Economic Index (MEI). | SGR changed to reduce volatility in updates with calendar-year projections. Most of the factors that make up the SGR are based on estimates—the BBRA required the estimates for 2000 and beyond to be updated with the best available data to prevent cumulative problems. |
| Allowed beneficiaries to contract for health care services with nonparticipating physicians without being subjected to Medicare's payment limits. | No change |

*Source: Public Law 105-33 and Medicare Payment Advisory Commission. Report to the Congress: Medicare Payment Policy. Washington, D.C., March 2000.*

Prior to the BBA, the mechanism used to update physician payments was the volume performance standard (VPS), which controlled annual Medicare spending for physician services by limiting updates based on historic volume and intensity. The new system, the SGR, relies on four factors; 1) the percentage change in fees for physicians' services; 2) the percentage change in Part B enrollees; 3) the estimated percentage change in the real gross domestic product (GDP) per capita; and, 4) the estimated percentage change in spending for physician services due to changes in law and regulations.[5,6] The SGR, specifically its inclusion of changes in the GDP, "... is intended to achieve a balance between necessary growth in the volume and intensity of services and affordability of Medicare's spending for physicians' services."[6]

BBRA provisions that affected physician services were essentially technical fixes and methodological improvements primarily focused on the SGR methodology. The changes resulted in a reduction in the potential volatility in annual payment increases and a requirement that estimates of the SGR factors be updated when improved data becomes available.

### Inpatient Hospital Services

The BBA made numerous and significant changes to hospital payments,[iii] with initial savings over the five years 1998–2002 estimated at $32 billion[6] (see Table 2). Medicare reimburses hospitals for both operating and capital expenses. The BBA provided for no increases in operating payments in 1998 and limited increases (as measured by the market basket index for hospital ser-

[iii]Medicare distinguishes between PPS (prospective payment system) hospitals (i.e., those that are paid using Medicare's DRG system), and non-PPS hospitals (primarily psychiatric, rehabilitation, and long-term care hospitals). For purposes of this paper, the inpatient hospital discussions are limited to PPS hospitals, unless other stated.

Table 2

*Impact of BBA and BBRA on Inpatient Hospital Services*

| BBA | BBRA |
|---|---|
| Eliminated annual operating payment updates for 1998–2002 (0 in 1998, market basket [MB] -1.9% in 1999, MB -1.8% in 2000, and MB -1.1% for 2001 and 2002). | No change |
| Reduced disproportionate share adjustment (DSH) payments from 1% in 1998 to 5% in 2002. | Minimized the reduction to allow for 3% reduction in 2001 and 4% in 2002; required the collection of hospital data on uncompensated care to aid in development of a new DSH payment system. |
| Reduced Medicare bad debt reimbursement from 100% to 75% in 1998, 60% in 1999, and 55% in future years. | No change |
| Reduced capital payments by 17.7%. | No change |
| Created a transfer policy for 10 high-volume DRGs, reducing payment when patients in these 10 DRGs are discharged to post-acute facilities after very short stays. | No change |
| Reduced Indirect Medical Education (IME) payments (for each 10% rise in teaching intensity) from 7.7% to 5.5% by 2001 and thereafter. | Further reduced IME payments to 6.5% in 2000, 6.25% in 2001, and 5.5% in 2002 and thereafter. |
| Direct Medical Education (DME) payments for residents capped at residency number as of December 1996. | Created a national per-resident payment amount; reduced variation in DME payments by defining a floor of 70% of national average per-resident amount and temporarily freezing payments above 140%. |

*Source: Public Law 105-33 and Medicare Payment Advisory Commission. Report to the Congress: Medicare Payment Policy. Washington, D.C., March 2000.*

vices) through 2002, with increases returning to normal by 2003. Hospital capital payments were reduced sharply, but according to MedPAC, the reductions were included so that capital payments better reflected Medicare-allowable capital costs, which were overestimated by HCFA several years earlier and resulted in overpayments after 1996.[6]

The BBA, passed during a time when estimates of an oversupply of physicians still influenced policy discussions, changed how Medicare reimburses hospitals for the costs associated with graduate medical education (GME). Specifically, the BBA reduced, over a five-year period (extended to six years under the BBRA), the indirect medical education adjustment (IMEA), and limited Medicare payments for direct medical education (DME) for residents to the number of full-time equivalent residents during the hospital's cost-reporting period for 1996. In response to criticism that Medicare HMO payments to medical education did not follow residents to their actual hospitals, the BBA carved some money out of the Medicare HMO rates and allowed for the money to be distributed directly to hospitals. The DME changes that were incorporated into the BBRA were primarily intended to reduce the geographic variation in DME payments by establishing a national payment amount and fixing rates at that level.

The BBA also expanded Medicare's definition of a hospital transfer to include 10 high-volume DRGs. Hospitals receive a payment that is based on an average per diem amount for the length of stay up to the DRG payment amount, rather than automatically receiving the full DRG payment.

The final significant change in hospital payments is a phased reduction in the disproportionate share (DSH) adjustment (reduced one percentage point as a result of the BBRA) through 2002. The DSH adjustment is a payment adjustment to hospitals that serve a large portion of low-income patients. The BBA called for the development of a new DSH system to more accurately reflect the care (and corresponding costs) provided to low-income patients. The current DSH payment system, while recognizing the costs borne by hospitals that treat low-income patients, excludes uncompensated care and calculates the number of low-income patients by relying on the number of state Medicaid recipients, without adjusting for state eligibility differences.

## Home Health Care and SNF Services

The post-acute care sector, specifically home health care and SNF care, experienced dramatic changes under the BBA.

When originally developed, the Medicare home health benefit included annual limits on the number of home health visits that beneficiaries could receive. In 1980, Congress eliminated the limits, but HCFA continued to maintain strict eligibility criteria.[7] A subsequent court challenge changed the Medicare home health care benefit from one that had been traditionally focused on short-term, post-hospital care to one that included longer-term care, including care for patients with chronic conditions.[8] Prior to the passage of the BBA, payment for home health services was made on a cost basis, up to defined per-visit limits. Despite payment limits by type of visit (e.g., home

health aide, skilled nursing, etc.), no standards for what constituted a visit, such as time limits or specific services provided, existed.[8] The BBA, borrowing on the prospective payment experience used for other services, mandated the development of a PPS for home health services to be implemented on October 1, 1999. The BBRA ultimately delayed the implementation date to October 1, 2000, primarily in response to HCFA's inability to implement the new system on time because of Y2K activities. (Changes in home health care are summarized in Table 3.)

Table 3

*Impact of BBA and BBRA on Home Health Services*

| BBA | BBRA |
|---|---|
| Created a new prospective payment system (PPS) for home health services, effective October 1999 (later delayed by Congress until October 2000). | Clarified payment update (market basket minus 1.1% for 2002 and 2003). |
| Established an interim payment system (IPS) to contain costs until PPS was implemented. IPS reduced limits based on costs per visit and created an agency-specific cap on average costs per beneficiary, based on a blend of agency-specific costs and average per-patient costs for agencies in the same region. | In 2000, for agencies below the national median the per-beneficiary limits under the IPS were increased by 2%. |
| PPS payment levels at implementation (October 1, 1999 later changed by Congress to October 1, 2000) to be set at IPS level minus 15%. | Delayed 15% reduction until 1 year after implementation of the PPS (October 1, 2001), based on recommendation of the Secretary of DHHS on its need. |
| Transferred some home health spending from Part A of Medicare to Part B. | No change |

*Source: Public Law 105-33 and Medicare Payment Advisory Commission. Report to the Congress: Medicare Payment Policy. Washington, D.C., March 2000.*

Before the implementation of the PPS, and in an attempt to generate immediate savings in the home health care sector, the BBA established an interim payment system (IPS), which included more stringent per-visit cost limits and which subjected home health agencies to an annual cap based on a per-beneficiary blend of an agency's historical average payments and a regional or national average payment. The BBA also called for the PPS payment level to be set at 15 percent below the spending level that occurred under the IPS. The BBRA, however, has delayed the 15 percent reduction until October 2002, and only if HCFA determines the reduction necessary for overall cost containment.[8] The new home health PPS will pay home health agencies a single payment based on 60-day episodes of care, adjusted for patient characteristics and geographic variation in costs.[8] Although the PPS is generally regarded to be a more appropriate payment system than the IPS, concerns remain. For example, the PPS payment rate for an episode of care is paid regardless of actual services delivered, raising questions about the adequacy of the fees for high-cost patients.[8]

Like home health care, services provided by SNFs prior to BBA passage were reimbursed on a cost basis, with limits on routine services only. SNFs could deliver unlimited ancillary services. In fact, a U.S. General Accounting Office (GAO) analysis found that between 1992 and 1995, the average annual increases for SNF ancillary costs were more than three times greater than the increases for routine costs.[9] Under the BBA's PPS (to be phased in over three years beginning in 1998), SNFs are paid a national rate based on average allowable per diem costs in FY 1995.[1] The per diem rate covers all routine, ancillary, and capital costs incurred by the SNF. The new system is intended to create financial incentives for SNFs to deliver efficient care across all services, including ancillary services. Under the PPS, patients are assigned to a resource utilization group (RUG), which classifies patients by specific clinical characteristics for purposes of determining payment rates. The BBRA reduced the impact of the payment cuts anticipated by the new PPS for 2000–2002 and bumped payments for 15 specific high-cost cases for part of 2000. In addition, the BBRA allowed SNFs to move to the fully phased-in PPS rate faster than the phase-in schedule required, arguably because some PPS rates benefited some SNFs.[10] (Table 4 highlights changes to skilled nursing facilities.)

## The Impact

The BBA, and its softening through the BBRA, brought about historic changes in Medicare policy. In terms of balancing the federal budget and reducing Medicare's growth rate, the BBA could be considered successful. Actual reductions for 1998–1999 were far greater than projected. After the passage of the BBA, the 8 percent annual growth rate fell to 1.5 percent in 1998, (far below the projected 5.7 percent). In 1999, for the first time in Medicare's history, Medicare spending actually decreased—by nearly 1 percent.[1] In light of these reductions, it is important to determine if the price of such savings was a reduction in beneficiaries' access to care or a provider's inability to survive financially.

Determining the actual effects of the BBA is complex, in part because of the inherent difficulty in trying to isolate the changes brought about by the legislation from changes in the broader health care marketplace. As stated by MedPAC, "Lower-than-expected spending and poor provider financial performance, in and of themselves, do not indicate that the BBA missed its mark."[1] A significant

Table 4

*Impact of BBA and BBRA on Skilled Nursing Facilities (SNFs)*

| BBA | BBRA |
|---|---|
| Created a new case-mix adjusted per diem prospective payment system (PPS), to be phased in over a 3-year period using facility-specific and national rates. | SNFs have option to be paid at full federal rate for PPS before required to under phase-in schedule. |
| Updates to PPS calculated based on market basket minus one. | No change |
| | Increased rates by 20% for 15 categories of high-cost cases, effective April–September 2000. |
| | Provided a 4% temporary, across-the-board increase in payments for 2001–2002. |

*Source: Public Law 105-33 and Medicare Payment Advisory Commission. Report to the Congress: Medicare Payment Policy. Washington, D.C., March 2000.*

amount has been written about the negative impact of the BBA, the bulk of which has come from those sectors experiencing the greatest change—home health care, SNFs, and hospitals. Although the combined effect of the BBA and the BBRA will not be clear until all changes have been fully implemented, the ramifications to date deserve attention.

## Physician Services

Physician services emerged from the BBA relatively unscathed. The BBA changes affected physician services, but national data suggest that the modifications have not altered access to physician care. A survey commissioned by MedPAC found the same percentage of physicians (95%) willing to accept all or some new Medicare patients in both 1997 (pre-BBA changes) and 1999.[1] Although those physicians surveyed worried about the adequacy of Medicare reimbursement levels, they were more concerned about HMO and Medicaid payment levels.[1] Despite short-term reports, continued monitoring of access to physician services by Medicare beneficiaries is critical, particularly because the practice expense values are not yet fully implemented.

While the BBA appears not to have affected access to physician care, it certainly had an impact on physicians. The most controversial provision of the BBA for any physician has been the implementation of the resource-based practice-expense relative value units. Although the new practice expense values would have been implemented without BBA passage (a 1994 law called for their implementation in 1998), the BBA is credited with their ultimate arrival.

When fully implemented and compared with the previous values, the new practice-expense relative value units were expected to affect Medicare physician payment in the range from -15 percent for gastroenterologists to +20 percent for dermatologists.[11] Not surprisingly, the changes threatened to divide the physician community. Although most physicians supported the concept of achieving resource-based values, the process used to define the values proved highly contentious, resulting in a lawsuit against the federal government filed by 11 primarily surgical specialty societies that challenged HCFA's methodology (physicians most objected to using 1998 as the base year). The U.S. District Court for the Northern District of Illinois dismissed the case, but the case has been appealed and, as this article goes to press, no decision has been announced. At the June 2000 meeting of the American Medical Association, the AMA modified its position in favor of resource-based relative value units to support one in which Congress would use budget surplus funds to halt the phase-in of the practice-expense values at their current 50 percent historic charge-based values and 50 percent resource-based values, while leaving in place the planned increases in payments for office visits and office consultations.

The BBA spawned an additional lawsuit over physician payment policy. Challenging HCFA's estimates used in calculating the SGR, the AMA filed suit claiming that HCFA's failure to update the estimates with the best available data in 1998 and 1999 shortchanged physicians by more than $3 billion. While the BBRA changed the way in which new data are incorporated in the 2000 estimates and beyond, the lawsuit defined HCFA's failure to adjust the 1998–1999 estimates as "arbitrary and capricious." As this article goes to press, no decision in the SGR lawsuit has been announced.

## Inpatient Hospital Services

The impact of the BBA changes on hospitals was initially estimated at $35 billion to $50 billion. More recent projections, however, estimate losses of more than $70 billion.[12] Before the BBA, national data indicated that Medicare inpatient margins for hospitals had increased from -2 percent to 17 percent over six years.[1] Post-BBA, hospitals, particularly those that maintained post-acute care services within the hospital, were forced to cut back all services. The total impact of such reductions raised concern about the financial stability of hospitals, particularly small, rural hospitals.[13] Teaching hospitals also worried about the impact of the BBA. An Association of American Medical Colleges (AAMC) analysis conducted at the end of the first year of the BBA's implementation suggested that the total losses for all teaching hospitals could reach $14.7 billion. According to the AAMC's president, Jordan Cohen, M.D., "Teaching hospitals, with their mission of research, education, and charity

care, are feeling the impact [of the BBA] much more harshly than are other hospitals."[14]

With the passage of the BBRA, about $8 billion was restored for inpatient hospital services. Nevertheless, a study by the Lewin Group for the American Hospital Association estimates the cumulative impact of the BBA and the BBRA from 1998–2004 will be losses of $110 billion. According to the Minnesota Hospital and Healthcare Partnership, the BBA and BBRA reductions in Minnesota through 2004 will total $1.1 billion, with Medicare margins in Minnesota hospitals dropping from -10 percent in 1998 to -25 percent in 2004. In other words, by 2004, Minnesota hospitals will lose 25 cents for every $1 they spend serving Medicare patients.[12]

The continued financial impact of the BBA, despite the BBRA changes, has again prompted hospitals to ask Congress to restore some funding. As this article goes to press, a "giveback" package worth $28.2 billion over five years awaits final congressional action. The proposal recommends $8.4 billion for hospitals, including $1.7 billion for rural hospitals, $5.7 billion for adjustments to the market basket update (with a full market basket update in 2001), and $1 billion for teaching institutions through adjustments to the IMEA update.[15]

### Home Health Care and SNF Services

The dramatic changes and reductions in home health care payments and services after the BBA concerned many home health care agencies. The MMA responded by submitting a resolution to the 1998 interim meeting of the AMA, asking the group to monitor the impact of the home health care IPS on Medicare beneficiaries' access to home health care services.

Between 1997 and 1999, Medicare home health spending dropped an astonishing 48 percent; the number of beneficiaries receiving home health services declined 22 percent, and the average number of home health visits provided to users declined 44 percent.[8] Furthermore, since 1997, about 14 percent of home health agencies have closed nationwide, with rural areas seeing greater cutbacks in services than urban areas.[16] Minnesota has actually witnessed a slight increase in the number of Medicare-certified home health agencies. According to data from the Minnesota Department of Health, there were 255 agencies in 2000, up modestly from the 249 in 1996 (personal communication with Ed Potter, Minnesota Department of Health Facility and Provider Compliance Division, October 27, 2000). The geographic distribution of these agencies was not analyzed; however, none of Minnesota's 87 counties has fewer than two Medicare-certified home health agencies.[17] Despite a slight increase in agencies in Minnesota, the number of visits per person actually decreased 32 percent from 1994–1999, just above the national decrease of 37 percent.[8] The decline in visits per beneficiary is difficult to interpret. The decline may reflect appropriate and/or inappropriate reductions in care in response to the IPS. GAO has noted that the reductions are consistent with IPS goals, but that the reductions exceed what was necessary for home health agencies to stay within the IPS payment limits.[8] MedPAC determined that the IPS likely had a negative effect on beneficiaries.[1] Citing responses from more than one-half of home health agencies surveyed, MedPAC noted that the IPS may have resulted in a decrease in Medicare caseloads or the denial of admission to certain patients.[1] The home health PPS was implemented on October 1, 2000. There is some question as to whether the 60-day episode of care payment adequately addresses the wide range of services needed by home health care users. The PPS is, however, generally considered to be superior to the IPS. As this article goes to press, the "giveback" legislation pending before Congress would provide $1.3 billion in new spending for home health agencies.[15] Regardless, the PPS will be watched carefully to determine its impact on home health care service use.

Although a significant and rising portion of SNF revenue, Medicare expenditures actually account for only about 12 percent of SNF revenue.[9] Medicaid is the single largest payer of nursing home services. Nevertheless, the U.S. Congressional Budget Office estimated that over the first five years of implementation, the new SNF PPS is expected to save Medicare $9.5 billion.[3] Although beneficiary access to nursing home care does not appear to have been compromised since BBA passage, the fact that five large national nursing home chains (representing about 1,800 facilities) have filed for bankruptcy has raised questions about the adequacy of PPS rates.[10] According to data provided by the Minnesota Department of Health, there were 430 Medicare-certified SNFs in Minnesota in 2000, down slightly from the 440 in 1996 (personal communication with Ed Potter, Minnesota Department of Health Facility and Provider Compliance Division, October 27, 2000). In addition, national data indicate that SNFs are asking potential patients about their need for ancillary services, which may suggest that patients with complicated cases and needs may face access problems.[1] GAO contends, however, that the PPS rates sufficiently cover patient costs, and may even be generous, noting that the average daily rate under the PPS in 1999 was greater than the rate paid in 1997.[10] The 1999 rate, however, must cover a broader range of services than the 1997 rate was expected to cover. For those SNFs that had invested heavily in ancillary services pre-BBA, the new payment system is likely a significant challenge. The greatest fear, however, appears to be about the ability and willingness of SNFs to provide care to patients with high-cost needs, including those who require ancillary services. As this article goes to press, the "giveback" legislation pending before Congress would provide $1.6 billion in new spending for SNFs.[15]

## *Conclusion*

The BBA has had far-reaching, mixed implications for Medicare providers and beneficiaries alike. From a strictly federal budgetary perspective, the BBA is successful. Although it does not appear to have directly reduced beneficiary access to care, concerns remain, particularly for beneficiaries with high-cost, chronic conditions. Past and present modifications to the BBA suggest that the actual impact has been far greater than originally intended.

As this article demonstrates, all providers have been affected, but not equally. Physicians, who experienced federal cuts in past years, have emerged from the BBA likely feeling the least wounded. Physicians, of course, do not deliver care in a vacuum, and their ability to deliver care depends on the availability of hospitals, nursing homes, and home health care agencies. Continued monitoring of the effects of the BBA is essential to ensure that its long-term benefits are realized. MM

*Janet Silversmith is director of Health Economics and Policy Analysis for the Minnesota Medical Association.*

REFERENCES

1. Medicare Payment Advisory Commission. Report to the Congress: Medicare payment policy. Washington, D.C.: March 2000.
2. Kahn C, Kuttner H. Budget bills and Medicare policy: the politics of the BBA. Health Affairs 1999;18(1):37-47.
3. Scanlon W. Balanced Budget Act: implementation of key Medicare mandates must evolve to fulfill Congressional objectives. General Accounting Office; Testimony before the Subcommittee on Health, Committee on Ways and Means, United States House of Representatives, July 16, 1998.
4. Landers S. AMA to lobby for more Medicare pay for doctors. Am Med News, July 3, 2000.
5. Public Law 105-33.
6. Medicare Payment Advisory Commission. Report to the Congress: Medicare Payment Policy. Washington, D.C. March 1999. U.S. Congressional Budget Office.
7. Public Law 96-499.
8. U.S. General Accounting Office. Medicare home health care: prospective payment system could reverse recent declines in spending. Washington, D.C.: General Accounting Office, September 2000: Report 00-176.
9. Dummit L. Nursing Homes: Aggregate Medicare payments are adequate despite bankruptcies. Washington, D.C.: General Accounting Office; Testimony before the Special Committee on Aging, United States Senate, September 5, 2000.
10. Scanlon W. Medicare: refinements should continue to improve appropriateness of provider payments. Washington, D.C.: General Accounting Office; Testimony before the Subcommittee on Health and Environment, Committee on Commerce, United States House of Representatives, July 19, 2000.
11. Federal Register. November 2, 1998.
12. Minnesota Hospital and Healthcare Partnership. BBA Relief 2000: Protect health care security, America needs a cost of caring adjustment. September 2000.
13. HCIA. A comprehensive review of hospital finances in the aftermath of the BBA of 1997, March 1999.
14. Marwick C. AAMC analyzes 1997 Balanced Budget Act. JAMA, 281(19):1781-82.
15. Teske S. Congressional leaders outline giveback package worth $73.5 billion. Bureau of National Affairs 2000;8(42):1728-29.
16. U.S. General Accounting Office. Medicare home health agencies: closures continue, with little evidence beneficiary access is impaired. Washington, D.C.: General Accounting Office, May 26, 1999. Report 99-120.
17. Minnesota Department of Health. Home care provider trends in Minnesota 1994–1999. St. Paul: Minnesota Department of Health, July 2000.

**SUPPLEMENT YOUR INCOME!**

All Care Consultants is seeking to hire licensed physicians, (MD's/DO's), to perform medical evaluations in a relaxed setting.

- $600 Plus Per Day
- No Referrals/ No Prescriptions
- Extremely Flexible Scheduling
- No Nights, No Weekends
- No On-Call Duty
- No Non-Compete Arrangements

Doctors needed in Minneapolis, St. Paul, Duluth, Rochester and St. Cloud.

**For more information, contact ALL CARE CONSULTANTS (763) 502-9431**

**ST. CLOUD MEDICAL GROUP**
*Growing to meet your needs.*

St. Cloud Medical Group is recruiting

**BC/BE physicians in family practice and pediatric medicine**

to join our 44-physician group. The St. Cloud Medical Group is an independent, physician-owned facility, which continues to expand in the St. Cloud area. St. Cloud Medical Group is a young and dynamic group of physicians who provide quality health care throughout Central Minnesota.

In pediatrics, you would be rotating call with six other pediatricians, and in family practice, you would be rotating call with 18 other family practitioners. SCMG provides an excellent salary and fringe benefit package and provides a quality of life for the individual and their family members. If you are interested in working with a physician-owned operation that controls its own destiny, please send your CV to:

Daryl Mathews, Administrator
St. Cloud Medical Group
1301 W. St. Germain
St. Cloud, MN, 56301
or call 320/251-8181
or fax your CV to 320/251-6942

# Getting By with a Little Help from Their Friends

*The MMA's Minnesota Physicians Foundation Student Loans Program helps future physicians get through medical school.*

By Lisa Moshfeghi

Lea R. Hogan, M.D., could not have made it through medical school without a loan from the Minnesota Physicians Foundation (MPF) of the MMA. Like many students, she lived a very meager lifestyle, often arriving on campus with nothing but pocket change to buy a bagel or orange. She weighed a mere 100 pounds, not by choice, but because she had no money to buy food. She ate sandwiches for dinner and biked to and from class year-round. Now a successful practicing psychiatrist in the Twin Cities, Hogan received the loan while attending medical school at the University of Minnesota from 1974 to 1978. The MPF loan helped to cover her school, food, and living expenses, she says.

For Hogan, the loan was, in many respects, also an endorsement of her studies and her career goals. The MPF loan stood out from the other lenders she used. It wasn't just the money, she explains, but the compassion and support that the foundation showed her that mattered. She believes that for a student who lacks family, emotional support, or professional connections, getting this loan can be heartening. Hogan, who currently serves as a member of the MPF board, feels obligated to contribute to the MPF and hopes that other physicians do, too. "Even $50 to $100 makes a huge difference," she says.

The Minnesota Physicians Foundation was established in 1952 as a charitable corporation affiliated with the MMA. The MPF administers three main programs: the Medical Student Financial Assistance Program; the Minnesota Physicians Support Services Program; and programs that coordinate funding for public health initiatives. Students who have successfully completed at least one semester of medical school and are in good academic standing may apply for an MPF loan. The foundation distributes these need-based loans to students attending accredited Minnesota medical schools, providing a maximum loan of $3,000 per academic year. For the past three years, MPF has granted roughly $270,000 to 90 students each year.

Amy Stromwell, M.D., an emergency medicine resident at Methodist Hospital in Indianapolis, used many loan sources to pay for her medical education. "The federal government has a large program," she explains, "but [medical school] is getting increasingly expensive." As a result, students seek out more than one lender. Stromwell, who relied on loans from seven lenders, graduated from the University of Minnesota-Twin Cities Medical School in 1999. She calls the MPF loan "fantastic." The MPF loan process was distinctive because it was personal and informal. "It [the loan process] felt like you were dealing with your parents. They didn't treat you like you were trying to steal anything," she says, explaining that "sometimes after you deal with a lot of lenders, they start to make you feel like you're doing something wrong just because you need to support yourself through school."

In contrast to larger, more impersonal lenders, the foundation made her feel as if she were being supported by a close-knit community. In her first year of medical school, a professor told her class, "Look around this room. Take care of yourself and take care of each other." Physicians should support one another in as many ways

## *Making a Donation*

As a result of rising tuition and the higher cost of federal loans, students need MPF loans more than ever. MPF's financial support helps ease financial burdens of medical students who are struggling to make it on scanty budgets and enables them to focus on their studies. If you're looking for someplace worthy to invest your money, think of medicine's future and its most precious capital, the students currently in medical school. To make a tax-deductible gift, please contact the Minnesota Physician's Foundation at 612/375-1875 or 800/342-5662; you may contribute via credit card or check. Every donation makes a significant impact.

as possible, Stromwell says. She reasons that medical students endure hardships because of their desire to become physicians. Many students graduate with six-figure debts and go without "real" paychecks for years beyond that. Inadequate funds, she insists, shouldn't prevent them from achieving their goals. "It's a nice feeling to know that people who want to become a physician are getting the chance to do it."

Eli Piatigorsky, a fourth-year medical student at the University of Minnesota-Twin Cities campus, has received three MPF loans. Piatigorsky came to the United States nine years ago as a political refugee from Moscow. Like Stromwell and Hogan, he likes MPF's flexibility, especially for students who work with multiple lenders. The foundation helps by "spreading out the loan burden," he says. He adds that the majority of lenders demand payment upon graduation and immediately charge interest. In contrast, the MPF loan is interest-free until the September after graduation; it then charges 8 percent interest per year.

Piatigorsky emphasizes how medical education costs have risen dramatically over the past 10 years. Many Minnesota physicians may not realize that for the 1998–1999 academic year, tuition and fees for in-state residents at the University of Minnesota-Twin Cities campus were the fifth most expensive nationwide among public universities; the Duluth campus was fourth.[1] With the Twin Cities' high rents and campus parking (Piatigorsky spends $50 a month), students like him are not using MPF loans to "buy a microscope" but to pay for daily needs. He believes that physicians who trained years ago may be unaware of these differences and hopes that once they are, they will contribute what they can. MM

*Lisa Moshfeghi is an associate editor at* Minnesota Medicine.

REFERENCE

1. Robinson L. Association of American Medical Colleges Web site. Table 2A. http://www.aamc.org/findinfo/infores/datarsc/tuitfees/9899/tab2a.htm. Accessed November 3, 2000.

**Central Minnesota Opportunities**

**CENTRACARE Clinic** *is a progressive and growing 127-physician multi-specialty clinic with nine Central Minnesota sites. Our clinics offer a comprehensive income and benefits package and are conveniently located between the Twin Cities and prime Minnesota lakes area. Central Minnesota offers an outstanding lifestyle with quality schools and abundant recreational activities. CentraCare Clinic is currently recruiting for the following locations:*

**CENTRACARE Clinic**
Women & Children's Center

***Join*** *an exceptional 22-physician clinic specializing in pediatrics and obstetrics/gynecology which currently has openings in the following specialties:*

**Allergy**
**Reproductive Endocrinologist**
**Pediatrics**

**CENTRACARE Clinic**
Heartland

***Join*** *an experienced 6-physician clinic which currently has an opening in:*

**Family Practice physician who practices Obstetrics**

**CENTRACARE Clinic**
Melrose

***Join*** *6-family practice physicians who practice obstetrics in a rural clinic setting:*

**Family Practice physician who practices Obstetrics**

**CENTRACARE Clinic**
River Campus

***Join*** *an exceptional 80-physician specialty clinic which currently has openings in the following specialties:*

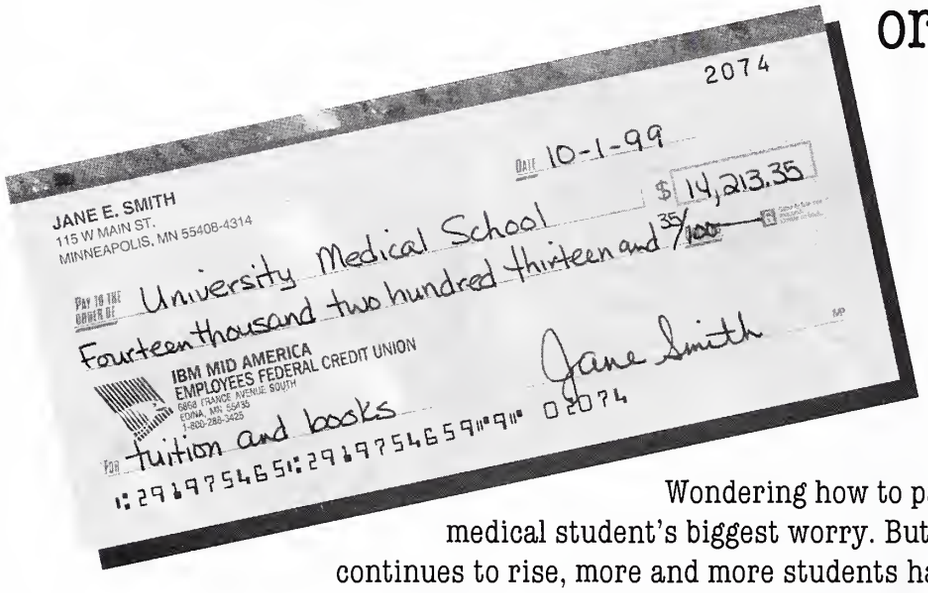
**Allergy**
**Cardiology**
**Dermatology**
**Gastroenterology**
**Hospitalist**
**Pain Management Specialist**
**(Neurology or Anesthesiology)**
**Internal Medicine**
**Pediatric Critical Care**
**Rheumatology**
**Surgery**

*For more information, please contact:*

***Karla Donlin***
*donlink@centracare.com*
***Kristine Cunningham***
*cunninghamk@centracare.com*
*Physician Recruiters*
*1406 Sixth Avenue North*
*St. Cloud, MN 56303*
***1-800-835-6652***
*www.centracare.com*

**CENTRACARE Clinic**

# Sometimes, the hardest part of medical school has nothing to do with gross anatomy or board exams.




Wondering how to pay tuition shouldn't be a medical student's biggest worry. But as the cost of medical education continues to rise, more and more students have a hard time making ends meet.

## They need your help.

For over 40 years, medical students have relied on the Minnesota Physicians Foundation (MPF) to help them become the next generation of physicians. Supported largely by the generous contributions of the members of the Minnesota Medical Association, MPF provides low-interest loans and scholarships to Minnesota's medical students.

The future of medicine depends on today's medical students. And they depend on you.

Contribute to the Minnesota Physicians Foundation.
For more information, please call 612/378-1875 or 800/DIAL MMA.

**MPF**

MINNESOTA PHYSICIANS FOUNDATION
A PHYSICIAN-SUPPORTED FOUNDATION OF
THE MINNESOTA MEDICAL ASSOCIATION

*A tradition of giving, a lifetime of commitment*

# *A Calendar of Continuing Medical Education Courses*

*Provided as a service of the MMA Committee on Accreditation and CME.* For assistance with scheduling meetings or for information on future medical meetings and CME courses, please contact the MMA office: 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; 612/378-1875. For a complete listing of our calendar, visit the MMA Web site at www.mnmed.org. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

## DECEMBER 2000

Dec. 1 **33rd Annual Symposium on Obstetrics and Gynecology** North Memorial Health Care; North Memorial Medical Center, Robbinsdale, MN. CONTACT: Stephanie Dean, 3500 France Avenue North, Suite 102, Robbinsdale, MN 55422-2806; 763/520-7274; Stephanie.Dean@northmemorial.com.

Dec. 4-8 **Team Management of Diabetes** Institute for Research and Education HealthSystem Minnesota; International Diabetes Center, Minneapolis, MN. CONTACT: International Diabetes Center, 3800 Park Nicollet Boulevard, Minneapolis, MN 55416-2699; 612/993-3393.

Dec. 7-8 **22nd Annual Cardiovascular Conference** HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Marilyn Horstman, HealthPartners, Institute for Medical Education, 8100 34th Avenue South, Minneapolis, MN 55440-1309; 952/883-6225; Marilyn.J.Horstman@HealthPartners.com.

Dec. 8 **9th Annual Family Practice Update** Hennepin County Medical Center; Sheraton Inn Airport, Bloomington, MN. CONTACT: Robin Hoppenrath, 701 Park Avenue, M/C 861-B, Minneapolis, MN 55415; 612/337-7128.

## JANUARY 2001

Jan. 19 **2001 Family Practice Conference** St. Mary's/Duluth Clinic Health System; Duluth Entertainment Convention Center, Duluth, MN. CONTACT: Catherine Koski, 400 E. Third Street (5AV2ME), Duluth, MN 55805; 218/786-3854.

Jan. 19-21 **Mid-Minnesota Medical Symposium on Primary Care** St. Cloud Hospital; Holiday Inn Hotel & Suites, St. Cloud, MN. CONTACT: Sandi Theisen, St. Cloud Hospital, CME Division of Medical Staff Services, 1406 Sixth Avenue North, St. Cloud, MN 56301; 320/251-2700 ext. 54551.

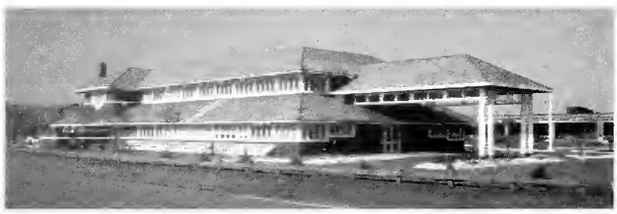
**Neurologist**

**There are immediate openings at Brainerd Medical Center for Neurologists.**

**Brainerd Medical Center, P.A.**
- **42-physician independent multispecialty group**
- **Located in a primary service area of 50,000 people**
- **Almost 100% fee-for-service**
- **Excellent fringe benefits**
- **Competitive compensation**
- **Exceptional services available at 162-bed local hospital, St. Joseph's Medical Center**

**Brainerd, Minnesota**
- **Surrounded by the premier lakes of Minnesota**
- **Located in central Minnesota less than 2½ hours from the Twin Cities, Duluth, and Fargo**
- **Large, very progressive school district**
- **Great community for families**

**Call collect to Administrator:**
**Curt Nielsen**
**218/828-7105 or 218/829-4901**
**2024 South 6th Street**
**Brainerd, MN 56401**
**email: bmc@brainerd.net**
**internet: www.brainerdmedicalcenter.com**



*St. Cloud, Minnesota*—St. Cloud Hospital/Mayo Family Practice Residency Program, a successful, community-based, unopposed, 4-4-4 Family Practice Residency program sponsored by Mayo Graduate School of Medicine seeks a full-time BC physician/faculty member to join its experienced faculty. As a member of this team, your responsibilities will include resident supervision and direct patient care, including inpatient and outpatient. We offer a highly competitive salary commensurate with training and experience and benefits including relocation allowance, four weeks of paid vacation, and two weeks CME. This program emphasizes doctor-patient relationships, rural practice preparation, procedural training, obstetrical care, evidence-based medicine, and an adult learner model. St. Cloud is a growing, family-oriented college town of 110,000 conveniently located between Minneapolis/St. Paul and prime Minnesota lake areas. Please contact George Schoephoerster, M.D., at 800/575-2982, fax CV, 320/240-3165, or e-mail: schoephoersterg@centracare.com

**✠ St.Cloud Hospital / Mayo Family Practice Residency**

Jan. 22-26 **A Mayo Clinic Comprehensive Review: Reconstructive Surgery of the Upper and Lower Extremity** Mayo Clinic/Mayo Foundation; Westin Hapuna Beach Prince Hotel, Mauna Kea Resort; Kohala Coast, Big Island of Hawaii. CONTACT: Registrars, Mayo School of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

FEBRUARY 2001

Feb. 5-9 **Mayo Foundation Presents: Gastroenterology and Hepatology for the 21st Century** Mayo Foundation; Hapuna Beach Prince Hotel, Mauna Kea Resort, Kohala Coast, Big Island of Hawaii. CONTACT: Registrars, Mayo Foundation, Mayo School of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

Feb. 5-9 **Continuing Challenges in Hematology, Oncology and Hematopathology** Mayo Clinic/Mayo Foundation; Silvertree Hotel, Snowmass, Colorado. CONTACT: Registrars, Mayo Foundation, Mayo School of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688 or 507/284-2509; cme@mayo.edu.

Feb. 8-9 **Burn Care Today** The Burn Center at Regions Hospital, HealthPartners Department of Surgery, HealthPartners Institute for Medical Education; Holiday Inn East, St. Paul, MN. CONTACT: Marilyn Horstman, HealthPartners, Institute for Medical Education, 8100 34th Avenue South, Minneapolis, MN 55440-1309; 952/883-6225; Marilyn.J.Horstman@HealthPartners.com.

Feb. 10 **HealthEast Winter Medical Seminar 2001** HealthEast Care System; The Westin Regina Resort/Puerta Vallarta, Puerta Vallarta, Mexico. CONTACT: De Granstrom, 1700 University Avenue West, St. Paul, MN 55104; 651/232-5104.

Feb. 20-24 **Whitefish 2001: A Primary Care Odyssey** MeritCare Health System and UND School of Medicine and Health Sciences; Grouse Mountain Lodge, Whitefish, MT. CONTACT: Cheri Rodenburg, MeritCare Critical Care Services, 720 4th Street North, Fargo, ND 58122; 701/234-6913.

Feb. 26-March 3 **Mayo Clinic Contemporary Issues in Adult Clinical Urology** Mayo Foundation; Westin Hapuna Beach Prince Hotel, Mauna Kea Resort, Kohala Coast, Big Island of Hawaii. CONTACT: Registrars, Mayo Foundation, Mayo School of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688.

MARCH 2001

March 19-23 **Selected Topics in Internal Medicine** Mayo Clinic/Mayo Foundation; Westin Hapuna Beach Prince Hotel, Mauna Kea Resort, Kohola Coast, Hawaii. CONTACT: Registrars, Mayo Foundation, Mayo School of Continuing Medical Education, 200 First Street SW, Rochester, MN 55905; 800/323-2688 or 507/284-2509.

The best of both — A place to practice. A place to live.

Owatonna Clinic offers physicians local practice autonomy and access to Mayo Clinic's expertise in clinical medicine, education and research.

Opportunities to join our team are available in:

- Dermatology
- Family Medicine
- Internal Medicine
- Obstetrics and Gynecology
- Orthopedic Surgery

To learn more about our wonderful city and clinic, visit us at owtclinic.org

**Contact David Berg at 507-455-4441 or berg.david2@mayo.edu**

Owatonna Clinic

*Mayo Health System*

**BUFFALO CLINIC, P.A.**

The Buffalo Clinic and Monticello Clinic, an independent, physician-owned practice is seeking to ad BE/BC physicians in:

- **Internal Medicine**
- **Pediatrics**

Buffalo Clinic, P.A. is a 27-physician multispecialty group with 2 practice locations, Monticello and Buffalo. Both locations are located adjacent to the hospital.

Buffalo Clinic guarantees salary for the first 2 years with partnership after 2 years, excellent contract benefits. If interested, contact:

**Linda Dircks, Administrator**

Buffalo Clinic

**1700 Hwy 25 North, Buffalo, MN 55313**

**Phone: 763/287-6877 Fax: 763/287-6805**

# STOP HERE

**YOU NAME IT–WE CAN MAKE IT!**

- ◆ Bioidentical natural hormone replacement therapy
- ◆ Alternative routes of administration
- ◆ Discontinued or hard-to-find medications
- ◆ Custom dose and dosage form
- ◆ Solutions for unique medical problems
- ◆ Achilles Express bone density testing

We are your "Problem-Solving" Specialist!

***Custom-Rx Compounding Pharmacy***

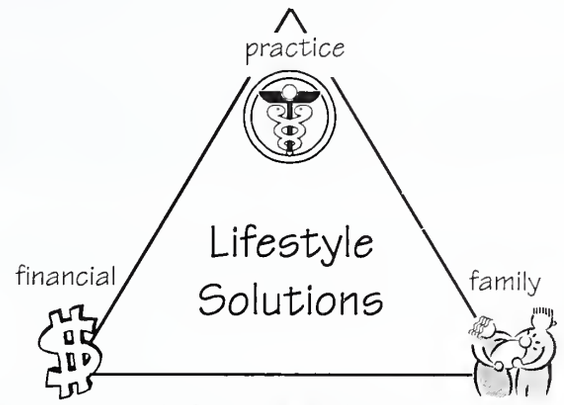
Verne Betlach, R.Ph., FIACP

Richfield Professional Building

6519 Nicollet Ave. S, Ste. 201

612/866-2211 fax 612/866-9217

# PROVIDING




# SOLUTIONS

**• Emergency Medicine • Locum Tenens**

***ACUTE CARE, INC.***

For more information, please call

**800.729.7813 or 515.964.2772**

e-mail address: jeffw@acutecare.com

nicoleo@acutecare.com

home page: http://www.acutecare.com

# HealthPartners®

*Institute for Medical Education*

## CONTINUING PROFESSIONAL DEVELOPMENT OFFERINGS

Cardiology Today ..... Every Second Tuesday
22nd Annual Cardiovascular Conference ..... December 7 – 8, 2000
13th Annual Burn & Wound Care Today ..... February 8 – 9, 2001
The Blues & Beyond:
Practical Tools For Dealing With Depression and Low Mood ..... February 23, 2001
15th Annual Family Medicine Today ..... March 8 – 9, 2001
OB/Gyn Update ..... April 5 – 6, 2001
End of Life Care ..... April 26 – 27, 2001

**FOR FURTHER INFORMATION CONTACT:**

*Health Partners Institute for Medical Education*
*Continuing Professional Development*
*8100 34th Ave. S., P.O. Box 1309 • Minneapolis, MN 55440-1309*
*Phone 952/883-6225 • Fax 952/883-7272*
*Web site: IME.HealthPartners.com*

# *Physician Opportunities and Miscellaneous Listings*

***Classified rates are $3.00 a word (300-word maximum). Minimum monthly charge is $50; with box number $5 additional. Ads will not be accepted by phone.***

- Placement of ads must be made six weeks before the date of publication, e.g., December 15 for February ad. Please send ad requests to *Minnesota Medicine,* 3433 Broadway Street NE, Suite 300, Minneapolis, Minnesota 55413-1761; or by fax, 612/378-3875; or e-mail, mm@mnmed.org.
- The publisher reserves the right to decline or withdraw advertisements. The publisher is not responsible for clerical or typographical errors and is not permitted to divulge the identity of advertisers who have replies sent to box numbers.
- Cancellation of ads must be made by the first of the month preceding month of issue.

---

**Quello Clinic, Ltd.:** Well-established, south suburban, physician-owned group seeking part/full-time ob/gyn and family practice physicians to work in our regular day clinic. We are also seeking physicians to work at our urgent care sites. Contact medical director at 952/985-8931, or write Quello Clinic, Ltd., 7801 East Bush Lake Road, Suite 300, Bloomington, MN 55439. (6/00-R)

---

**Fairview Health Services:** Practice opportunities in urban, suburban, and semirural locations. Moonlighting and part-time urgent care opportunities also available. Please contact Fairview Physician Recruitment and Retention at 612/672-2288, 800/842-6469, fax: 612/672-2986, e-mail: recruit1@fairview.org or visit our Web site at www.fairview.org/recruitment. (6/00-R)

---

**Olmsted Medical Center** is seeking BC/BE physicians in family medicine, emergency medicine, and dermatology to join our 75-physician multispecialty group. Great opportunity for well-trained physicians to join a family-friendly group in a dynamic, progressive practice. In addition to its main office and hospital in Rochester, the Olmsted Medical Center system includes 11 branch office locations in southeastern Minnesota. Excellent salary and benefits, including health benefits, malpractice, spending accounts, educational funds, profit sharing, 401(k)/403(b), and relocation assistance. Send CV to Lois Till-Tarara, Olmsted Medical Center, 1650 Fourth Street SE, Rochester, MN 55904; 507/287-2430. Fax: 507/285-8973. (*3/99-R)

---

**MDsearch** assists medical groups and hospitals in their recruiting efforts. For confidential information on opportunities in the Upper Midwest, send CV and/or call collect Mary Jo Cordes, MDsearch, P.O. Box 21507, St. Paul, MN 55121; 651/454-7291. Fax: 651/454-7277. (2/93-R)

---

**Medical Director:** For rehabilitation/physical therapy clinic in St. Paul. Opportunity to grow with practice. No on call or weekends. Call Midway Injury Management. 651/644-0210. (2-10/00)

---

**The Minnesota Recruiter** works with Minnesota practices to staff their physician opportunities and with physicians seeking new opportunities. Through our nationwide affiliate offices, we can provide attractive opportunities in nearly all parts of the country. Access these opportunities online at www.mnrecruiter.com or contact us confidentially at 800/967-2711, or by fax at 320/587-7252. (6-1/01)

---

**Weber Law Office:** Focusing on the professional and personal legal needs of the health professional. Former attorney for the Board of Medical Practice. Over six years with the Minnesota Attorney General's Office. Committed to the best legal outcome possible through diligence and resourcefulness. 612/296-8080; www.weberlaw.com. (6-12/00)

---

**Full- or Part-time BC/BE Radiologist** to join 36-physician multispecialty group. Excellent salary/benefit package. No J-1 Visa. Contact James Matter, M.D., or Scott Swenson, M.D., 218/736-8000, 615 South Mill Street, Fergus Falls, MN 56537. EEO/AA (3-2/01)

---

**Urgent Care Physician:** HealthEast Care System is seeking physicians for part-time evening and weekend urgent care shifts at its South St. Paul location. Interested family practice, emergency medicine, or internal medicine physicians should contact Karen Karlinski, M.D., HealthEast Urgent Care, 724 19th Avenue North, South St. Paul, MN 55075, 651/232-6375. (10/00-R)

---

**Clinical Space Available for Subleasing** at Abbott Northwestern Medical Building, Central Medical Building (St. Paul), Maplewood Professional Building, and Oak Ridge Professional Building (Burnsville). For more information, please call 651/312-1543. (3-1/01)

---

**Ski Big Sky:** Rent from owner. 30% below resort rate. Three bed, three bath, ski in-ski out (200 feet from lift). Condo sleeps 10, washer/dryer in unit. Call Paul at 651/483-1163 evenings. (1-12/00)

---

**Group Practice** in Shelby, Montana, seeking GP or FP with OB and c-section. For details contact Jerome Morasko at 888/242-3202 or e-mail jmorasko@mariasmedicalcenter.org. (1-12/00)

---

**Join a team of dedicated professionals** and practice your specialty in a challenging and rewarding environment. Correctional Medical Services, the nation's leader in providing medical care to correctional facilities, needs

primary care physicians to practice in Minnesota. We offer competitive fees, malpractice insurance option, and benefits. For more information please contact Joyce Solomon at 800/325-4809 ext. 9558. (1-12/00)

---

**The Minnesota Institute of Neurology** would like to invite physicians with general medicine, family medicine, neurology, and orthopedic backgrounds to explore a wonderful opportunity treating patients suffering from pain syndromes. No on-call work. No weekends or nights. Full- or part-time hours available. Flexible scheduling and competitive compensation. For more information regarding this opportunity, contact Michael Czichray, clinic director, at 651/917-9170 or fax a CV to 651/917-9176. (3-2/01)

---

**Supplement your income!** All Care Consultants, Inc. is seeking to hire licensed physicians (M.D., D.O.) to perform medical evaluations in a relaxed setting. $600 plus per day. No referrals or prescriptions. No nights or weekend work unless desired. No on-call duties. No non-compete arrangements. Doctors needed in Minneapolis, St. Paul, Duluth, Rochester, and St. Cloud. For more information, contact All Care Consultants, Inc. 763/502-9431. (3-2/01)

---

**IHS Medical** looking for FT/PT family practitioner, internist, and PT/FT neurologist. Call Monday thru Friday, 651/644-0456. Ask for Rebecca Laws. (1-11/00)

---

# Keeping Healthcare Close to Home

Medcenter One Health Systems in Bismarck, North Dakota, is a non-profit corporation consisting of a 238-bed hospital, a large multi-specialty clinic, 21 rural clinics and 3 nursing homes.

*Opportunities include:*

- Gastroenterology
- Internal Medicine
- Orthopedic Surgery
- Pediatrics

Bismarck is the capital city of North Dakota, has low crime, great schools, good hunting and fishing, golfing, skiing, and is located on the Missouri River.

*Contact Sue Jacobson at 1-800-932-8758 x 8745*
*Medcenter One Health Systems*

PO Box 5525 • Bismarck, ND 58506.
Fax: 701-323-5800 • www.medcenterone.com
Email: sjacob@mohs.org.

**Medcenter One Health Systems**

---

Park Nicollet

## Family Practice
## Internal Medicine

Park Nicollet Clinic is seeking BE/BC Family Practice Physicians and General Internists to join our multi-specialty group in western and southern suburban Minneapolis.

Award-winning Park Nicollet Clinic is one of the largest multi-specialty clinics in the country with nearly 500 physicians and 270 clinical professionals practicing in 45 medical subspecialties. The clinic is nationally and locally recognized for its care improvement initiatives.

Park Nicollet Clinic offers a variety of practice settings ranging from small primary care settings to specialty care in larger sites. Wherever a physician practices, they have the collaboration of their colleagues in providing the finest care.

For immediate consideration, please fax, mail, or email your CV and cover letter to:

Missy Fisher, Clinician Recruitment
Park Nicollet Health Services
3800 Park Nicollet Boulevard - 7N
Minneapolis, MN 55416
(952)993-6025 or (888)437-5004, (952)993-2819 fax
***fishem@parknicollet.com***

---

# Emergency Medicine Opportunities

**Emergency Practice Associates** provides quality emergency physician services. Our physicians work as independent contractors in a growth-oriented, physician-supported environment.

***full-time opportunities***

| | |
|---|---|
| *GRAND RAPIDS, MN* | **Itasca Medical Center**<br>Medical Director and Staff Physician |
| *HIBBING, MN* | **University Medical Center–Mesabi**<br>Staff Physician |
| *LITTLE FALLS, MN* | **St. Gabriel's Hospital**<br>Staff Physician |

***part-time opportunities***

| | |
|---|---|
| *NEW ULM , MN* | **New Ulm Medical Center**<br>Medical Director and Staff Physician |
| *CROSBY, MN* | **Cuyuna Regional Medical Center** |

EMERGENCY PRACTICE ASSOCIATES
BOX 1260
WATERLOO, IA 50704
FAX: 319-236-3644

**Call Patty Berning, Physician Recruiter at 1-800-458-5003**
www.epamidwest.com

**MINNESOTA INSTITUTE OF NEUROLOGY**

Minnesota Institute of Neurology would like to invite physicians with General Medicine/ Family Medicine/ Neurology/ Orthopedic backgrounds to explore a wonderful opportunity treating patients suffering from pain syndromes.

- No On-Call Work
- No Nights or Weekends
- Full/Part Time Available
- Flexible Scheduling
- Competitive Compensation

For more information, contact Michael Czichray, Clinic Director at (651) 917-9170 or fax CV to (651) 917-9176.

DECEMBER 2000 INDEX TO ADVERTISERS

Acute Care, Inc. ..... 55
Affiliated Community Medical Centers ..... 60
All Care Consultants ..... 49
Army Reserve ..... 58
Aspen Medical Group ..... 24
Brainerd Medical Center ..... 53, 62
Buffalo Clinic ..... 54
CentraCare Clinic ..... 51, 62
Custom-Rx Compounding ..... 55
Emergency Practice Associates ..... 57
Federal Medical Center ..... 3
Gustilo-Kyle Clinic ..... 5
HealthEast Bethesda Rehabilitation Hospital ..... Cover 2
HealthPartners CME ..... 55
HealthSystem Minnesota/Park Nicollet ..... 57
Leonard, Street & Deinard ..... 28
Management Services by Choice ..... 32
Mankato Clinic ..... 63
Medcenter One Health Systems ..... 57
Medical Protective Co. ..... Cover 3
MeritCare ..... 31
Minnesota Institute of Neurology ..... 58
Minnesota Physicians Foundation ..... 52
Midwest Medical Insurance Company ..... 21, 41
MMA Membership ..... 71
Multicare Associates of the Twin Cities ..... 31
North American Training Institute ..... 40
North Memorial Healthcare ..... 3
Northwest Family Physicians ..... 24
Owatonna Clinic-Mayo Health Systems ..... 54
Red Cedar Clinic/Mayo Health Systems ..... 63
Regions Hospital ..... Cover 4
St. Cloud Hospital Mayo FP Residency ..... 53
St. Cloud Medical Group ..... 49
St. Mary's/Duluth Clinic Health System ..... 60
St. Paul Medical Services ..... 60
Suburban Imaging ..... 5
University of Minnesota Department of Medicine ..... 28
Wally McCarthy Cadillac ..... 9
Whitesell Medical Locums, Ltd. ..... 3
Winona Clinic, Ltd. ..... 31

**THE ARMY RESERVE OFFERS PHYSICIANS UNIQUE AND REWARDING EXPERIENCES**



As a Medical Corps officer in the Army Reserve, you will be offered a variety of challenges and rewards. You will also have a unique array of advantages that will add a new dimension to your civilian career, such as:

- Continuing medical education opportunities
- A $50,000 education loan repayment and a $30,000 recruitment bonus to qualified physicians meeting eligibility criteria
- Generous retirement benefits at age 60 with 20 years of qualifying service
- Low-cost life and dental insurance
- Networking
- Change of pace
- Worldwide travel opportunities
- Rank and privileges of an Army officer
- Commissary and post exchange shopping privileges

To find out more, or to have an Army Reserve Health Care Recruiter contact you, call:

**1-800-USA-ARMY**
www.goarmy.com

**ARMY RESERVE HEALTH CARE TEAM. BE ALL YOU CAN BE.**

# *Volume 83 Index, January–December 2000*


A

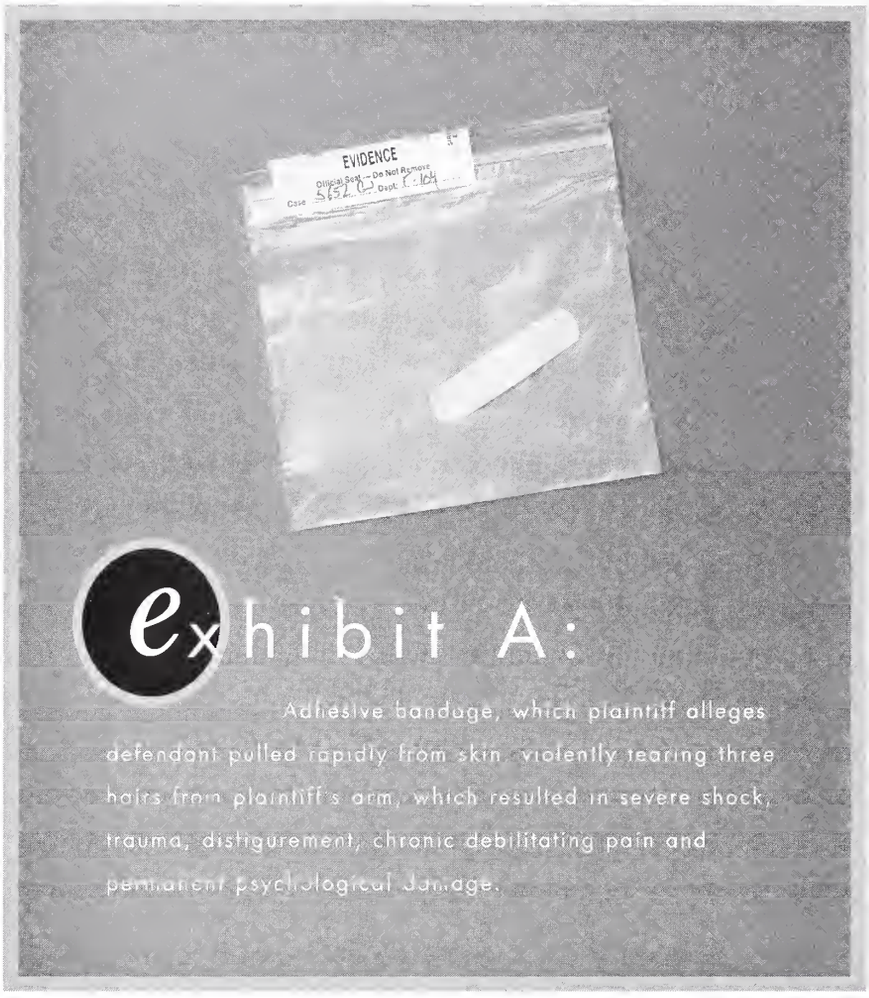
After Hours. Lucia Wilkes Smith, December, 14.
Agerter DC, Rasmussen NH: Diagnosing and Treating ADHD in Children, June, 51.
Air Bags: An Imperfect and Incomplete Solution. Jon S. Roesler and Mark R. Kinde, August, 57.
Allen J, Brock SA: Tailoring the Message, May, 45.
American Health Lawyers Association: New Safe Harbors Expand Protections against Prosecution or Sanctions, April, 52.
America's Speed Ways. Review of "Running on Ritalin," by Lawrence Diller. Charles R. Meyer, June, 65.
Antibiotic Bacterial Resistance in Ambulatory Patients. Barbara P. Yawn, Peter Wollan, Frank Cockerill, and Eva Lydick, October, 53.
Association of Poverty and Low Immunization Rates in ZIP Code Areas (The): A Retrospective Survey of Minnesota Kindergartners. Alan R. Lifson, Margaret Roddy, and Kristen R. Ehresmann, August, 51.
At the Heart of the Matter. Dan Emerson, June, 8.
Attorney General's Health Care Agenda (The). Kim Palmer, February, 8.
August GJ, Realmuto GM: Pharmacotherapy in ADHD: Guidelines for Prescribing Stimulant Medications in Young Children, June, 45.

B

Babes in Arms: Juvenile Access to Guns in Minnesota. Jeff Rugel, September, 18.
Bates DW, Gawande AA: Error in Medicine: What Have We Learned? July, 18.
Baumgarten A: The Cost of Coverage, January, 16.
Bell H: The Doctor Is (Getting) Out, October, 10.
Bell H: Llama Lover, June, 76.
Bell H: Snowbird, February, 72.
Berg RE, Elliott BA: Rural Minnesota Family Physicians: Practice Characteristics, Gender, Income, and Job Satisfaction, February, 42.
Beyond Treating the Wounds. Jill Heins Nesvold, Sara Seifert, Neal Holtan, and Janny Dwyer Brust, September, 51.
Bodas MR: Medicare Managed Care Reimbursement: Unjust Yet Constitutional, October, 60.
Boulger JG: Minnesota Bound: Stability of Practice Location among UMD Family Physicians in Minnesota, February, 48.
Bowen J: Bridging the Multicultural Gap, December, 10.
Boys and Their Toys. Jon Hallberg, September, 14.
Bradley K: Measure for Measure, November, 10.
Braun M: It Takes Two, March, 10.
Bridging the Multicultural Gap. Juan Bowen, December, 10.
Brust JD, Carlson A, Seifert S, and Braddock M: Calculating the Costs of Gun Injuries: A New Methodology, September, 64.

Book Reviews

America's Speed Ways. Review of "Running on Ritalin," by Lawrence Diller. Charles R. Meyer, June, 65.
Driving in the Sane Lane. Review of "Steering Clear of Highway Madness: A Driver's Guide to Curbing Stress and Strain," by John Larson. John Van Etta, August, 61.
Dying in America. Review of "In the Arms of Others," by Peter Filene. Charles R. Meyer, May, 63.
High Cost of Progress (The). Review of "False Hopes: Why America's Quest for Perfect Health Is a Recipe for Failure," by Daniel Callahan. Charles R. Meyer, January, 54.
Learning to Say 'I Don't Know.' Review of "Second Opinions: Stories of Intuition and Choice in the Changing World of Medicine," by Jerome Groopman. Charles R. Meyer, July, 50.
Meyer CR: America's Speedways. Review of "Running on Ritalin," by Lawrence Diller, June, 65.
Meyer CR: Dying in America. Review of "In the Arms of Others," by Peter Filene, May, 63.
Meyer CR: The High Cost of Progress. Review of "False Hopes: Why America's Quest for Perfect Health Is a Recipe for Failure," by Daniel Callahan, January, 54.
Meyer CR: Learning to Say 'I Don't Know.' Review of "Second Opinions: Stories of Intuition and Choice in the Changing World of Medicine," by Jerome Groopman, July, 50.
Meyer CR: The On-Call Muse. Review of "Doctors Afield," edited by Mary G. McCrea Curnen, Howard Spiro, and Deborah St. James, October, 64.
Meyer CR: Policing the Medical Profession. Review of "Blind Eye: How the Medical Establishment Let a Doctor Get Away with Murder," by James




To protect your reputation, we take every claim seriously.

Even the most absurd claims can be damaging if they're not handled properly. Which is why the full weight of our more than 60 years of experience in medical liability insurance is brought to bear on each and every claim, no matter how frivolous that claim may appear. In fact, when appropriate, we have appealed cases all the way to the United States Supreme Court, at no additional cost to policyholders. Because you can't put a bandage on a damaged reputation.

**The St Paul**
*Medical Services*

©2000 St. Paul Fire and Marine Insurance Company
Coverages underwritten by St. Paul Fire and Marine Insurance Company or another member of The St. Paul Companies. www.stpaul.com

**NORTHWESTERN WISCONSIN / NORTHEASTERN MINNESOTA**



# Midwest Living

***The ultimate mix of career and recreation.***

Select from practice opportunities in northwestern Wisconsin or northeastern Minnesota. Small towns or larger cities, we offer the best of midwest living with 25 locations. Clean air, clean water and an environment that brings you closer to all the things you value most. Enjoy a unique quality mix of career, four seasons of fun and outstanding growth potential with the region's most comprehensive health care system.

We seek **BE/BC physicians** in the following specialties:

- Dermatology
- Emergency Medicine
- Family Practice
- Gastroenterology
- Hematology/Oncology
- Infectious Disease
- Internal Medicine
- Internal Medicine - Intensivist
- Internal Medicine - Pediatrics
- Neonatology
- Neurology
- OB/GYN
- Orthopaedic Surgeon - General & Trauma
- Orthopaedic Hand Surgeon
- Pediatrics
- Perinatology
- Physiatry - Pediatric
- Psychiatry
- Radiology - General Diagnostic, Musculoskeletal, Neuroradiology, Interventional
- Trauma Surgery
- Urology

**SMDC**
St. Mary's/Duluth Clinic Health System

Call or Fax C.V. in confidence to:
Physician and Provider Recruitment
SMDC - St. Mary's/Duluth Clinic Health System
400 E. 3rd St., Dept. 504, Duluth MN 55805
1-800-342-1388 or 218-786-8364 Fax: 218-722-9952
e-mail: provider@smdc.org
Websites: www.smdc.org or www.duluth.com *EOE A/A*

# Picture your future with ACMC... We think you'll fit right in!

ACMC is a 100+ multispecialty group providing primary and secondary care in over 23 specialties in a network of 10 clinics in Southwestern and West Central Minnesota.

ACMC offers a secure practice among a well-established and respected physician-owned group with a very competitive financial and benefits package.

Positions now available for BE/BC physicians in:

Benson: *Family Practice*

Litchfield: *Family Practice*

Marshall: *Family Practice, Internal Medicine, Ob/Gyn, Pediatrics, General Surgery*

Redwood Falls: *Family Practice, Med/Peds*

Willmar: *Family Practice, Internal Medicine, Oncology, Orthopaedic Surgery, Gastroenterology, Anesthesia, Urology, Psychiatry, Dermatology*

*Contact:* **Kari Bredberg, Physician Recruitment**
**320/231-6366 • karib@acmc.com**
Affiliated Community Medical Centers
101 Willmar Avenue SW • Willmar, MN 56201
www.acmc.com

*Affiliated* COMMUNITY *Medical Centers, P.A.*

Stewart and "State Medical Boards and the Politics of Public Protection," by Carl Ameringer, November, 59.On-Call Muse (The). Review of "Doctors Afield," edited by Mary G. McCrea Curnen, Howard Spiro, and Deborah St. James. Charles R. Meyer, October, 64.
Policing the Medical Profession. Review of "Blind Eye: How the Medical Establishment Let a Doctor Get Away with Murder," by James Stewart and "State Medical Boards and the Politics of Public Protection," by Carl Ameringer. Charles R. Meyer, November, 59.
Van Etta J: Driving in the Sane Lane. Review of "Steering Clear of Highway Madness: A Driver's Guide to Curbing Stress and Strain," by John Larson, August, 61.

C

Calculating the Costs of Gun Injuries: A New Methodology. Janny Dwyer Brust, Angeline Carlson, Sara Seifert, and Mary Braddock, September, 64.
Carlson A, Odenbach P: Lament of the Older Generation, February, 14.
Celebrating 40 Years of Service. Cynthia Lehman, July, 47.
Children Are Dying for Some Exercise. Pete Egoscue, June, 42.
Child's Play? Kids, Sports, and Injury. Susan Gaines, June, 18.
Cochrane Library (The): A Resource for Current Reviews of Clinical Evidence. Amit Ghosh, Kathryn Robbins, and Julia Kelly, July, 43.
Colón K: From Cure to Comfort, May, 6.
Community Forums Bring Together Minnesota's Health Care Players. Jennifer Thistle, January, 23.
Complaints to the Minnesota Board of Medical Practice in FY 2000. Kent G. Harbison and Cynthia Jokela Moyer, November, 51.
Cost of Coverage (The). Allan Baumgarten, January, 16.
Costly Quest for Certainty (The). Seymour Handler, January, 10.
Coverup: Philip Morris Tries to Polish Its Image. Charles R. Meyer, March, 6.
Cross-Cultural Considerations in Health Care: One Hospital Responds. Cheryl Galbraith, December, 12.
Cunningham E: Physicians Who Write, October, 18.

**Clinical & Health Affairs**

Agerter DC, Rasmussen NH: Diagnosing and Treating ADHD in Children, June, 51.
Antibiotic Bacterial Resistance in Ambulatory Patients. Barbara P. Yawn, Peter Wollan, Frank Cockerill, and Eva Lydick, October, 53.
Association of Poverty and Low Immunization Rates in ZIP Code Areas (The): A Retrospective Survey of Minnesota Kindergartners. Alan R. Lifson, Margaret Roddy, and Kristen R. Ehresmann, August, 51.
Berg RE, Elliott BA: Rural Minnesota Family Physicians: Practice Characteristics, Gender, Income, and Job Satisfaction, February, 42.
Boulger JG: Minnesota Bound: Stability of Practice Location among UMD Family Physicians in Minnesota, February, 48.
Brust JD, Carlson A, Seifert S, and Braddock M: Calculating the Costs of Gun Injuries: A New Methodology, September, 64.
Calculating the Costs of Gun Injuries: A New Methodology. Janny Dwyer Brust, Angeline Carlson, Sara Seifert, and Mary Braddock, September, 64.
Diagnosing and Treating ADHD in Children. David C. Agerter and Norman H. Rasmussen, June, 51.
Diagnosing Childhood Attention-Deficit/Hyperactivity Disorder: Do Family Practitioners and Pediatricians Make the Same Call? Bruce Evink, Byron J. Crouse, and Barbara A. Elliott, June, 57.
Diagnosis and Management of Carotid Stenosis: A Review. Eric S. Nussbaum, January, 45.
Diet Prescription for Obesity: What Works (The)? Karen Holtmeier and Harold C. Seim, November, 28.
Enteric Parasites in East African Immigrants: Symptoms and Duration of U.S. Residence Are Not Predictive. William J. Sachs, Richard Adair, and Varvara Kirchner, December, 25.
Evink B, Crouse BJ, Elliott BA: Diagnosing Childhood Attention-Deficit/Hyperactivity Disorder: Do Family Practitioners and Pediatricians Make the Same Call?, June, 57.
Eyes Wide Shut: The Dangers of Sleepy Driving. Mark W. Mahowald, August, 25.
Firearm-related Suicide in Minnesota: A Picture of Morbidity and Mortality. Jill Heins Nesvold and Neal Holtan, September, 62.
Fogarty C, Sidebottom A, Holtan N, Lupo V: Project LID (Lower Infant Deaths): Lessons Learned from a Local Infant Mortality Review Project, August, 43.
Holtmeier K, Seim HC: The Diet Prescription for Obesity: What Works? November, 28.
Ketroser DB: Whiplash, Chronic Neck Pain, and Zygapophyseal Joint Disorders, February, 51.
Klem ML: Successful Losers: The Habits of Individuals Who Have Maintained Long-term Weight Loss, November, 43.
Lifson AR, Roddy M, Ehresmann KR: Association of Poverty and Low Immunization Rates in ZIP Code Areas (The): A Retrospective Survey of Minnesota Kindergartners, August, 51.
Mahowald MW: Eyes Wide Shut: The Dangers of Sleepy Driving, August, 25.
Minnesota Bound: Stability of Practice Location among UMD Family Physicians in Minnesota. James G. Boulger, February, 48.
Morrison J, Garry V, Harkins ME, Cohen M, and Palermo J: Regional Differences in Cardiovascular Mortality in Minnesota, April, 41.
Nesvold JH, Holtan N: Firearm-related Suicide in Minnesota: A Picture of Morbidity and Mortality, September, 62.

**Internal Medicine - Central Minnesota**

**Tired of taking call and working nights?**

Join an established 124-physician, multi-specialty clinic and work collaboratively with 13 other internists without the added burden of night-time admission call.

**Not a health care shortage area.**

✦✦✦✦✦✦

St. Cloud is a rapidly growing community with a population of 110,000 and a service area of 575,000. It is located on the Mississippi River and is one hour from Minneapolis/St. Paul and prime lakes area. Four major local colleges offer many choices in higher education. The community offers wholesome family atmosphere with numerous four-season recreational activities.

**We offer competitive salaries and comprehensive benefits.**

✦✦✦✦✦✦

**CentraCare Clinic** *is part of CentraCare Health System, which consists of a regional medical center, two rural hospitals, nine clinics and four long-term care facilities.*

**Contact:** Karla Donlin, Recruiter,
1406 6th Ave North,
St. Cloud, MN 56303
1-800-835-6652 ext. 54192
or donlink@centracare.com

www.centracare.com

**CENTRACARE Clinic**
River Campus

***Dermatology, Gastroenterology, General Surgery, Internal Medicine, and Neurology***

**There are immediate openings at Brainerd Medical Center for the following specialties: Dermatology, Gastroenterology, General Surgery, Internal Medicine, and Neurology.**

**Brainerd Medical Center, P.A.**
- **42-physician independent multispecialty group**
- **Located in a primary service area of 50,000 people**
- **Almost 100% fee-for-service**
- **Excellent fringe benefits**
- **Competitive compensation**
- **Exceptional services available at 162-bed local hospital, St. Joseph's Medical Center**

**Brainerd, Minnesota**
- **Surrounded by the premier lakes of Minnesota**
- **Located in central Minnesota less than 2½ hours from the Twin Cities, Duluth, and Fargo**
- **Large, very progressive school district**
- **Great community for families**

**Call collect to Administrator:**
**Curt Nielsen**
**218/828-7105 or 218/829-4901**
**2024 South 6th Street**
**Brainerd, MN 56401**
**email: bmc@brainerd.net**
**internet:www.brainerdmedicalcenter.com**

BMC

Nussbaum ES: Diagnosis and Management of Carotid Stenosis: A Review, January, 45.
Pediatric Firearm Injury in Minnesota, 1998: Fatal and Nonfatal Firearm Injuries among Minnesota Youth. Jon Roesler and Melissa Ostercamp, September, 57.
Pharmacological Treatment of Obesity: Past, Present, and Future. Mary Wangsness, November, 21.
Preventing Upper Extremity Overuse Injuries in Child and Adolescent Athletes. Andrew J. Thomas and George R. Blitz, June, 47.
Project LID (Lower Infant Deaths): Lessons Learned from a Local Infant Mortality Review Project. Cheryl Fogarty, Abbey Sidebottom, Neal Holtan, and Virginia Lupo, August, 43.
Regional Differences in Cardiovascular Mortality in Minnesota. John Morrison, Vincent Garry, Mary E. Harkins, Melissa Cohen, and Judy Palermo, April, 41.
Roesler J, Ostercamp M: Pediatric Firearm Injury in Minnesota, 1998: Fatal and Nonfatal Firearm Injuries among Minnesota Youth, September, 57.
Rooks JK, Roberts DJ, and Scheltema K: Tattoos: Their Relationship to Trauma, Psychopathology, and Other Myths, July, 24.
Rural Minnesota Family Physicians: Practice Characteristics, Gender, Income, and Job Satisfaction. Robert E. Berg and Barbara A. Elliott, February, 42.
Sachs WJ, Adair R, and Kirchner V: Enteric Parasites in East African Immigrants: Symptoms and Duration of U.S. Residence Are Not Predictive, December, 25.
Successful Losers: The Habits of Individuals Who Have Maintained Long-term Weight Loss. Mary Lou Klem, November, 43.
Tattoos: Their Relationship to Trauma, Psychopathology, and Other Myths. J. Kenneth Rooks, David J. Roberts, and Karen Scheltema, July, 24.
Thomas AJ, Blitz GR: Preventing Upper Extremity Overuse Injuries in Child and Adolescent Athletes, June, 47.
Wangsness M: Pharmacological Treatment of Obesity: Past, Present, and Future, November, 21.
Whiplash, Chronic Neck Pain, and Zygapophyseal Joint Disorders. David B. Ketroser, February, 51.
Yawn BP, Wollan P, Cockerill F, and Lydick E: Antibiotic Bacterial Resistance in Ambulatory Patients, October, 53.

**Commentaries**

Glasser RJ: Managed Care Finds Itself in Dire Straits, February, 16.
Grief and the Family. Ben Wolfe, May, 55.
In Search of a Good Death: The Spiritual Dimension. Gregory A. Plotnikoff, May, 50.
Managed Care Finds Itself in Dire Straits. Ronald J. Glasser, February, 16.
Palliative Care in Minnesota. Wayne Thalhuber, May, 52.

Plotnikoff GA: In Search of a Good Death: The Spiritual Dimension, May, 50.
Thalhuber W: Palliative Care in Minnesota, May, 52.
Wolfe B: Grief and the Family, May, 55.

D

Diagnosing and Treating ADHD in Children. David C. Agerter and Norman H. Rasmussen, June, 51.
Diagnosing Childhood Attention-Deficit/Hyperactivity Disorder: Do Family Practitioners and Pediatricians Make the Same Call? Bruce Evink, Byron J. Crouse, and Barbara A. Elliott, June, 57.
Diagnosis and Management of Asbestosis. Ola Kuku and David Parker, November, 47.
Diagnosis and Management of Carotid Stenosis: A Review. Eric S. Nussbaum, January, 45.
Diet Prescription for Obesity: What Works (The)? Karen Holtmeier and Harold C. Seim, November, 28.
Doctor Is (Getting) Out (The). Howard Bell, October, 10.
Driving in the Sane Lane. Review of "Steering Clear of Highway Madness: A Driver's Guide to Curbing Stress and Strain," by John Larson. John Van Etta, August, 61.
Durenberger D: Election 2000: What Your Vote May Mean for Health Care Policy, October, 46.
Dying in America. Review of "In the Arms of Others," by Peter Filene. Charles R. Meyer, May, 63.

E

Egoscue P: Children Are Dying for Some Exercise, June, 42.
Election 2000: What Your Vote May Mean for Health Care Policy. David Durenberger, October, 46.
Embracing Diversity. Patricia Ohmans, December, 16.
Emerson D: At the Heart of the Matter, June, 8.
Emerson D: Showtime, April, 8.
Emerson D: Systems Analyst, October, 6.
Enteric Parasites in East African Immigrants: Symptoms and Duration of U.S. Residence Are Not Predictive. William J. Sachs, Richard Adair, and Varvara Kirchner, December, 25.
Error in Medicine: What Have We Learned? David W. Bates and Atul A. Gawande, July, 18.
Error Prevention: One State's Approach. Christina F. Rich, July, 12.
Evink B, Crouse BJ, Elliott BA: Diagnosing Childhood Attention-Deficit/Hyperactivity Disorder: Do Family Practitioners and Pediatricians Make the Same Call?, June, 57.
Eyes Wide Shut: The Dangers of Sleepy Driving. Mark W. Mahowald, August, 25.

Editorials

August GJ, Realmuto GM: Pharmacotherapy in ADHD: Guidelines for Prescribing Stimulant Medications in Young Children, June, 45.
Bowen J: Bridging the Multicultural Gap, December, 10.
Bridging the Multicultural Gap. Juan Bowen, December, 10.

**Seeking 2 BC/BE emergency medicine physicians**

Wisconsin: Red Cedar Clinic - Mayo Health System in Menomonie, Wisconsin, is seeking two BC/BE emergency medicine physicians. Board-certified family practitioners with emergency medicine experience will be considered. The 52- bed Myrtle Werth Hospital is attached to the Red Cedar Clinic. The clinic is a 25-physician multispecialty group and includes family practice, pediatrics, internal medicine, orthopedics, and general surgery. The E.D. had 8,000 patient encounters and 20,000 urgent care encounters. Competitive benefits and compensation offered. Menomonie is a university community of 15,000; one hour east of Minneapolis/St. Paul.

**Contact Christie Blink at 1-800/573-2580 or fax 715/838-6688**

**80 YEARS AND STILL GROWING**

**We're looking for BC/BE physicians:**

Internal Medicine/Family Practice—We have mutiple opportunities available in our internal medicine and family practice departments.

Mankato Clinic is a multispecialty group practice with 75+ providers and a service area population of over 250,000. Our scenic riverside community has big city amenities, shopping and restaurants, all without the traffic hassles.

Radiology—Exceptional opportunity to join our Radiology Department. Brand new volume aquisition multi-detector spiral CT scanner necessitates expanding this well established department. This opportunity also includes reading MRI from the region's two newest open MRI.

We offer a guarenteed first-year salary with incentive pay plan. Our full range of benefits includes a generous retirement plan and liberal time-off policy.

For more information call Dr. Byron C. McGregor, Medical Director at 507/389-8548 or Dennis Davito, Director Physician Recruitment, 507/389-8654 or send CV.




Mankato Clinic
1230 East Main Street
Mankato, MN 56002-8674
fax: 507/388-3401

# *Minnesota Medicine*

AN EXCELLENT ADVERTISING INVESTMENT

Target marketing pays real dividends with your space advertising in ***Minnesota Medicine,*** the official journal of the Minnesota Medical Association.

Delivered directly to offices, hospitals, and clinics, ***Minnesota Medicine*** reaches your key clients and prospects in their business setting.

***For complete advertising information contact:***

Michele Holzwarth
Minnesota Medicine
3433 Broadway Street NE, Suite 300
Minneapolis, Minnesota 55413
**612/623-2880**
**800/DIAL-MMA (342-5662)**



Children Are Dying for Some Exercise. Pete Egoscue, June, 42.
Costly Quest for Certainty (The). Seymour Handler, January, 10.
Cross-Cultural Considerations in Health Care: One Hospital Responds. Cheryl Galbraith, December, 12.
Egoscue P: Children Are Dying for Some Exercise, June, 42.
Faultfinding: No Cure for Health Care Woes. Michael Scandrett, February, 22.
Frank RH: Not Insured, and Not Worried, January, 14.
Galbraith C: Cross-Cultural Considerations in Health Care: One Hospital Responds, December, 12.
Handler S: The Costly Quest for Certainty, January, 10.
Impaired Drivers. Herbert Rakatansky, August, 22.
Interplay of Poverty and Adverse Health Outcomes (The). Charles Oberg, August, 20.
Not Insured, and Not Worried. Robert H. Frank, January, 14.
Oberg C: The Interplay of Poverty and Adverse Health Outcomes, August, 20.
Pharmacotherapy in ADHD: Guidelines for Prescribing Stimulant Medications in Young Children. Gerald J. August and George M. Realmuto, June, 45.
Rakatansky H: Impaired Drivers, August, 22.
Scandrett M: Faultfinding: No Cure for Health Care Woes, February, 22.

Editor's Note

*Meyer, Charles R.*:
Diving for Pearls, April, 2.
Drug War (The), January, 2.
Final Exam: Health Care Econ 101, February, 2.
Heart and Soul, August, 2.
League of Our Own (A), June, 2.
Learning from Our Mistakes, July, 2.
Letting Go, May, 2.
Medicare Needs Another Upgrade, December, 2.
On the Road to Wisdom, March, 2.
Over Par, November, 2.
Roots of Youth Violence (The), September, 2.
'Swirling Saturation in Writing' (A), October, 2.

F

Faultfinding: No Cure for Health Care Woes. Michael Scandrett, February, 22.
Feldman MK: Fighting Smoke with Fire, March, 18.
Feldman MK: Preventing Medical Errors: A Blueprint for Safety, July, 10.
Fighting Smoke with Fire. Miriam Karmel Feldman, March, 18.
Firearm-related Suicide in Minnesota: A Picture of Morbidity and Mortality. Jill Heins Nesvold and Neal Holtan, September, 62.
Fit to Be Tied. Noël Radcliffe, February, 10.
Fogarty C, Sidebottom A, Holtan N, Lupo V: Project LID (Lower Infant Deaths): Lessons Learned from a Local Infant Mortality Review Project, August, 43.
Frank RH: Not Insured, and Not Worried, January, 14.
From Cure to Comfort. Katie Colón, May, 6.

Face to Face

*Abenstein, John P.*
Well-Engineered Medical Career (A). Ralph C. Heussner, Jr., January, 6.
*Billington, Charles*
Quiet Crusader Puts Faith in Science (A). Susan Gaines, November, 6.
*Braddock, Mary*
Reaching Communities of Children. Kim Palmer, September, 6.
*Ehlen, K. James*
Systems Analyst. Dan Emerson, October, 6.
*Hatch, Mike*
Attorney General's Health Care Agenda (The). Kim Palmer, February, 8.
*Hull, Harry F.*
Worldly-Wise. Carmen Peota, December, 6.
*Hurt, Richard*
Rapid Fire. Anne Welsbacher, March, 8.
*Leenay, Mark*
From Cure to Comfort. Katie Colón, May, 6.
*Ley, Carol*
A Spokeswoman for Safety. Anne Welsbacher, July, 6.

*Mahowald, Mark*
More Rest for the Weary. Susan Maas, August, 6.
*Maron, Barry*
At the Heart of the Matter. Dan Emerson, June, 8.
*Vercellotti, Gregory*
Showtime. Dan Emerson, April, 8.

G

Gaines S: Child's Play? Kids, Sports, and Injury, June, 18.
Gaines S: A Quiet Crusader Puts Faith in Science, November, 6.
Galbraith C: Cross-Cultural Considerations in Health Care: One Hospital Responds, December, 12.
Geller J: Loneliness: An Overlooked and Costly Health Risk Factor, April, 48.
Getting By with a Little Help from Their Friends. Lisa Moshfeghi, December, 50.
Ghosh A, Robbins K, Kelly J: The Cochrane Library: A Resource for Current Reviews of Clinical Evidence, July, 43.
Gillette Children's Specialty Healthcare: Sports for Kids With Disabilities, June, 25.
Glaser D: Understanding and Surviving Medicare Audits, December, 29.
Glasser RJ: Managed Care Finds Itself in Dire Straits, February, 16.
Goetinck S: Survival of the Fattest, November, 14.
Grief and the Family. Ben Wolfe, May, 55.

H

Hafner R: Health Care Decisions and the Community, January, 20.
Hallberg J: Boys and Their Toys, September, 14.
Hallberg J: Major League Dreams: How Baseball Transforms a Physician Each Spring, June, 12.
Hallberg J: Seduced by Smoke, March, 12.
Handler S: The Costly Quest for Certainty, January, 10.
Harbison KG, Moyer CJ: Complaints to the Minnesota Board of Medical Practice in FY 2000, November, 51.
Haugen PS: Prescribing Opiates for Pain Relief, May, 57.
Health Care Decisions and the Community. Rebecca Hafner, January, 20.
Health Care Taxes in Minnesota: An Analysis. The Minnesota Taxpayers Association, March, 43.
Health Policy Hub. Jodi Ohlsen Read, April, 26.
Heilman C: Listening to Rural Minnesota, September, 54.
Hennepin County Youths: Troubled Kids, Troubled Times, September, 11.
Heussner RC: A Well-Engineered Medical Career, January, 6.
High Cost of Progress (The). Review of "False Hopes: Why America's Quest for Perfect Health Is a Recipe for Failure," by Daniel Callahan. Charles R. Meyer, January, 54.
Holtmeier K, Seim HC: The Diet Prescription for Obesity: What Works? November, 28.
Hurry Up and Wait. James Kaufmann, October, 76.

**Hobbies & Leisure**

*Bell, Howard:*
Nordstrom, Leonard: Snowbird, February, 72.
Wogensen, Jon: Llama Lover, June, 76.

I

Impact of the 1997 Balanced Budget Act on Medicare (The). Janet Silversmith, December, 42.
Impaired Drivers. Herbert Rakatansky, August, 22.
In Battle Against Obesity, Biochemists Are Warriors. Tom Siegfried, November, 17.
In Search of a Good Death: The Spiritual Dimension. Gregory A. Plotnikoff, May, 50.
Interactive Media Violence and Children. David Walsh, September, 42.
Interplay of Poverty and Adverse Health Outcomes (The). Charles Oberg, August, 20.
Is the Experimental Treatment Exclusion Used Appropriately? Reinhard Priester, January, 26.
It Takes Two. Mary Braun, March, 10.

J

Jones D, Dunayer B, Thill C, and Oatman L: Where There's Smoke, There's Disease: The Dangers of Environmental Tobacco Smoke, March, 29.

**Just Write**

*Kaufmann, James:*
Hurry Up and Wait, October, 76.
Revision: Time to Take Another Look. December, 72.
Sentence Variety: The Long and Short of It, March, 64.
Why You Must Write Badly ... Once You Get Started, That Is, July, 64.

K

Kahn J: Protecting Youth from Harm, September, 47.
Kaufmann J: Hurry Up and Wait, October, 76.
Kaufmann J: Revision: Time to Take Another Look, December, 72.
Kaufmann J: Sentence Variety: The Long and Short of It, March, 64.
Kaufmann J: Why You Must Write Badly ... Once You Get Started, That Is, July, 64.
Keeping Kids Safe During the Drive. Kelly L.P. Sabo, August, 58.
Ketroser DB: Whiplash, Chronic Neck Pain, and Zygapophyseal Joint Disorders, February, 51.
Klein SA: A Novel Specialty, October, 30.
Klem ML: Successful Losers: The Habits of Individuals Who Have Maintained Long-term Weight Loss, November, 43.
Kohn M: Learning to Be Present to Dying Patients, May, 26.

Kuku O, Parker D: Diagnosis and Management of Asbestosis, November, 47.

L

Lament of the Older Generation. Andrea Carlson and Paul Odenbach, February, 14.
Last Bus of the Night (The). Amelia Mari Merz, August, 10.
Late Payment of Physician Claims: Results of an MMA Survey. Janet Silversmith, February, 25.
Leading the Way. Jennifer Thistle, April, 30.
Learning the Art of Medicine. Jodi Ohlsen Read, August, 14.
Learning to Be Present to Dying Patients. Martin Kohn, May, 26.
Learning to Say 'I Don't Know.' Review of "Second Opinions: Stories of Intuition and Choice in the Changing World of Medicine," by Jerome Groopman. Charles R. Meyer, July, 50.
Lehman C: Celebrating 40 Years of Service, July, 47.
Lehman C: Striking Back, September, 24.
Lessons from the Heart. Jeremiah Christopher Whitten, April, 23.
Lifson AR, Roddy M, Ehresmann KR: Association of Poverty and Low Immunization Rates in ZIP Code Areas (The): A Retrospective Survey of Minnesota Kindergartners, August, 51.
Listening to Rural Minnesota. Cheryl Heilman, September, 54.
Llama Lover. Howard Bell, June, 76.
Logging On to 'Liquid Gold.' Kim Palmer, March, 24.
Loneliness: An Overlooked and Costly Health Risk Factor. Jeffrey Geller, April, 48.

Letters to the Editor

Decline and Fall of HMOs (The). Richard L. Reece, April, 6.
E-beams and Gamma Rays. Morton J. Kaplan, February, 7.
Hannon DW: Long-term Outcome Following Pancreas Surgery, April, 7.
Hoffman N: Issues Resonate with Physician, April, 6.
Hubbard JE: Whiplash Backlash, June, 5.
Issues Resonate with Physician. Neil Hoffman, April, 6.
Kaplan MJ: E-beams and Gamma Rays, February, 7.
Ketroser DB: Muscles *Can* Be a Pain in the Neck, June, 6.
Long-term Outcome Following Pancreas Surgery. Donald W. Hannon, April, 7.
More to the Story. Lloyd A. Wells, February, 7.
Muscles *Can* Be a Pain in the Neck. David B. Ketroser, June, 6.
Pharris BD: Sharing Information about Mental Illness, February, 7.
Reece RL: The Decline and Fall of HMOs, April, 6.
Sharing Information about Mental Illness. Bill Dexheimer Pharris, February, 7.
Wells LA: More to the Story, February, 7.
Whiplash Backlash. Jack E. Hubbard, June, 5.

M

Maas S: More Rest for the Weary, August, 6.
Mahowald MW: Eyes Wide Shut: The Dangers of Sleepy Driving, August, 25.
Major League Dreams: How Baseball Transforms a Physician Each Spring. Jon Hallberg, June, 12.
Making Hockey Safer, June, 20.
Managed Care Finds Itself in Dire Straits. Ronald J. Glasser, February, 16.
Managing Risk. Debra McBride, July, 29.
Mastering the Medicine of Motion. Kristin Smith, June, 26.
McBride D: Managing Risk, July, 29.
Measure for Measure. Kathleen Bradley, November, 10.
Media Violence: The Harsh Reality. Stephanie Stapleton, September, 28.
Medical Consumers Browse a Chaotic Cyberspace. Charles R. Meyer, April, 12.
Medicare Managed Care Reimbursement: Unjust Yet Constitutional. Margie R. Bodas, October, 60.
MEDPAC Board of Directors: MEDPAC Endorsements for the 2000 Elections, October, 50.
MEDPAC Endorsements for the 2000 Elections. MEDPAC Board of Directors, October, 50.
Merz AM: The Last Bus of the Night, August, 10.
Meyer CR: America's Speed Ways. Review of "Running on Ritalin," by Lawrence Diller, June, 65.
Meyer CR: Coverup: Philip Morris Tries to Polish Its Image, March, 6.
Meyer CR: Dying in America. Review of "In the Arms of Others," by Peter Filene, May, 63.
Meyer CR: The High Cost of Progress. Review of "False Hopes: Why America's Quest for Perfect Health Is a Recipe for Failure," by Daniel Callahan, January, 54.
Meyer CR: Learning to Say 'I Don't Know.' Review of "Second Opinions: Stories of Intuition and Choice in the Changing World of Medicine," by Jerome Groopman, July, 50.
Meyer CR: Medical Consumers Browse a Chaotic Cyberspace, April, 12.
Meyer CR: The On-Call Muse. Review of "Doctors Afield," edited by Mary G. McCrea Curnen, Howard Spiro, and Deborah St. James, October, 64.
Meyer CR: Policing the Medical Profession. Review of "Blind Eye: How the Medical Establishment Let a Doctor Get Away with Murder," by James Stewart and "State Medical Boards and the Politics of Public Protection," by Carl Ameringer, November, 59.
Mini Med School: For That Little Bit of Doctor in Everyone. Margaret E. Parker, April, 20.
Minnesota Bound: Stability of Practice Location among UMD Family Physicians in Minnesota. James G. Boulger, February, 48.
Minnesota Partnership to Improve End-of-Life Care (The). Edward Ratner and Linda Norlander, May, 43.

Minnesota Surveillance for Unexplained Deaths and Critical Illnesses of Possible Infectious Cause. Jean Rainbow, Ruth Lynfield, James R. Johnson, and Richard N. Danila, January, 51.
Minnesota Taxpayers Association (The): Health Care Taxes in Minnesota: An Analysis, March, 43.
Minnesota's Medicare PRO Focuses on Quality Improvement. Jane Pederson, Tom Arneson, and Jennifer Lundblad, January, 42.
Mitchell LE, Bunde DP, Struthers MS, Wraspir KL, Moos RE: Peer Review: Can the Board of Medical Practice Subpoena Your Files? November, 55.
MMA Legislative Preview: 2000 Promises Short Session, Big Surplus, Complex Issues. Dave Renner, February, 29.
More Rest for the Weary. Susan Maas, August, 6.
Morrison J, Garry V, Harkins ME, Cohen M, and Palermo J: Regional Differences in Cardiovascular Mortality in Minnesota, April, 41.
Moshfeghi L: Getting By with a Little Help from Their Friends, December, 50.
Moving Pictures. Carmen Peota, May, 14.

**Media Watch**

Coverup: Philip Morris Tries to Polish Its Image. Charles R. Meyer, March, 6.
Meyer CR: Coverup: Philip Morris Tries to Polish Its Image, March, 6.

**Medicine & the Arts**

*Hallberg, Jon:*
Seduced by Smoke, March, 12.

**Medicine Law & Policy**

American Health Lawyers Association: New Safe Harbors Expand Protections against Prosecution or Sanctions, April, 52.
Bodas MR: Medicare Managed Care Reimbursement: Unjust Yet Constitutional, October, 60.
Complaints to the Minnesota Board of Medical Practice in FY 2000. Kent G. Harbison and Cynthia Jokela Moyer, November, 51.
Glaser D: Understanding and Surviving Medicare Audits, December, 29.
Harbison KG, Moyer CJ: Complaints to the Minnesota Board of Medical Practice in FY 2000, November, 51.
Haugen PS: Prescribing Opiates for Pain Relief, May, 57.
Managing Risk. Debra McBride, July, 29.
McBride D: Managing Risk, July, 29.
Medicare Managed Care Reimbursement: Unjust Yet Constitutional. Margie R. Bodas, October, 60.
Mitchell LE, Bunde DP, Struthers MS, Wraspir KL, Moos RE: Peer Review: Can the Board of Medical Practice Subpoena Your Files? November, 55.
New Safe Harbors Expand Protections against Prosecution or Sanctions. American Health Lawyers Association, April, 52.
Opening the National Practitioner Data Bank: Good Idea or Bad Public Policy? Christina F. Rich, July, 30.
Peer Review: Can the Board of Medical Practice Subpoena Your Files? Lora Esch Mitchell, David P. Bunde, Margo S. Struthers, Kari L. Wraspir, and Rebecca Egge Moos, November, 55.
Practicing in the Age of EMTALA. Barbara E. Tretheway and Hilary D. Marden, February, 55.
Prescribing Opiates for Pain Relief. Phebe Saunders Haugen, May, 57.
Rich CF: Opening the National Practitioner Data Bank: Good Idea or Bad Public Policy? July, 30.
Tretheway BE, Marden HD: Practicing in the Age of EMTALA, February, 55.
Understanding and Surviving Medicare Audits. David Glaser, December, 29.

**Minnesota Medical Association**

Celebrating 40 Years of Service. Cynthia Lehman, July, 47.
Community Forums Bring Together Minnesota's Health Care Players. Jennifer Thistle, January, 23.
Impact of the Balanced Budget Act of 1997 on Medicare (The). Janet Silversmith, December, 42.
Late Payment of Physician Claims: Results of an MMA Survey. Janet Silversmith, February, 25.
Lehman C: Celebrating 40 Years of Service, July, 47.
MEDPAC Board of Directors: MEDPAC Endorsements for the 2000 Elections, October, 50.
MEDPAC Endorsements for the 2000 Elections. MEDPAC Board of Directors, October, 50.
MMA Legislative Preview: 2000 Promises Short Session, Big Surplus, Complex Issues. Dave Renner, February, 29.
Renner D: MMA Legislative Preview: 2000 Promises Short Session, Big Surplus, Complex Issues, February, 29.
Silversmith J: The Impact of the Balanced Budget Act of 1997 on Medicare, December, 42.
Silversmith J: Late Payment of Physician Claims: Results of an MMA Survey, February, 25.
Thistle J: Community Forums Bring Together Minnesota's Health Care Players, January, 23.

**N**

Nesvold JH, Holtan N: Firearm-related Suicide in Minnesota: A Picture of Morbidity and Mortality, September, 62.
Nesvold JH, Seifert S, Holtan N, Brust JD: Beyond Treating the Wounds, September, 51.
New Safe Harbors Expand Protections against Prosecution or Sanctions. American Health Lawyers Association, April, 52.
Not Insured, and Not Worried. Robert H. Frank, January, 14.
Novel Specialty (A). Sarah A. Klein, October, 30.
Nussbaum ES: Diagnosis and Management of Carotid Stenosis: A Review, January, 45.

O

Oberg C: The Interplay of Poverty and Adverse Health Outcomes, August, 20.
Oberg CN, Cutts DB: Pediatrics: A Century of Caring, January, 29.
Ohmans P: Embracing Diversity, December, 16.
On-Call Muse (The). Review of "Doctors Afield," edited by Mary G. McCrea Curnen, Howard Spiro, and Deborah St. James. Charles R. Meyer, October, 64.
Opening the National Practitioner Data Bank: Good Idea or Bad Public Policy? Christina F. Rich, July, 30.

P

Palliative Care in Minnesota. Wayne Thalhuber, May, 52.
Palmer K: The Attorney General's Health Care Agenda, February, 8.
Palmer K: Logging On to 'Liquid Gold,' March, 24.
Palmer K: Reaching Communities of Children, September, 6.
Parker ME: Mini Med School: For That Little Bit of Doctor in Everyone, April, 20.
Pederson J, Arneson T, Lundblad J: Minnesota's Medicare PRO Focuses on Quality Improvement, January, 42.
Pediatric Firearm Injury in Minnesota, 1998: Fatal and Nonfatal Firearm Injuries among Minnesota Youth. Jon Roesler and Melissa Ostercamp, September, 57.
Pediatrics: A Century of Caring. Charles N. Oberg and Diana Becker Cutts, January, 29.
Peer Review: Can the Board of Medical Practice Subpoena Your Files? Lora Esch Mitchell, David P. Bunde, Margo S. Struthers, Kari L. Wraspir, and Rebecca Egge Moos, November, 55.
Peota C: Moving Pictures, May, 14.
Peota C: Worldly-Wise, December, 6.
Pharmacological Treatment of Obesity: Past, Present, and Future. Mary Wangsness, November, 21.
Pharmacotherapy in ADHD: Guidelines for Prescribing Stimulant Medications in Young Children. Gerald J. August and George M. Realmuto, June, 45.
Physicians Can Help Implement 'Culture of Safety.' Linda O. Prager, July, 14.
Physicians Who Write. Elaine Cunningham, October, 18.
Plotnikoff GA: In Search of a Good Death: The Spiritual Dimension, May, 50.
Policing the Medical Profession. Review of "Blind Eye: How the Medical Establishment Let a Doctor Get Away with Murder," by James Stewart and "State Medical Boards and the Politics of Public Protection," by Carl Ameringer. Charles R. Meyer, November, 59.
Practicing in the Age of EMTALA. Barbara E. Tretheway and Hilary D. Marden, February, 55.
Prager LO: Physicians Can Help Implement 'Culture of Safety,' July, 14.
Prescribing Opiates for Pain Relief. Phebe Saunders Haugen, May, 57.
Preventing Medical Errors: A Blueprint for Safety. Miriam Karmel Feldman, July, 10.
Preventing Upper Extremity Overuse Injuries in Child and Adolescent Athletes. Andrew J. Thomas and George R. Blitz, June, 47.
Priester R: Is the Experimental Treatment Exclusion Used Appropriately? January, 26.
Project LID (Lower Infant Deaths): Lessons Learned from a Local Infant Mortality Review Project. Cheryl Fogarty, Abbey Sidebottom, Neal Holtan, and Virginia Lupo, August, 43.
Promising Approaches to Youth Violence Prevention. Renee Vanman Wixon, September, 49.
Protecting Youth from Harm. Judith Kahn, September, 47.

**Perspectives**

After Hours. Lucia Wilkes Smith, December, 14.
Boys and Their Toys. Jon Hallberg, September, 14.
Bradley K: Measure for Measure, November, 10.
Braun M: It Takes Two, March, 10.
Carlson A, Odenbach P: Lament of the Older Generation, February, 14.
Fit to Be Tied. Noël Radcliffe, February, 10.
Hallberg J: Boys and Their Toys, September, 14.
Hallberg J: Major League Dreams: How Baseball Transforms a Physician Each Spring, June, 12.
Hennepin County Youths: Troubled Kids, Troubled Times, September, 11.
It Takes Two. Mary Braun, March, 10.
Lament of the Older Generation. Andrea Carlson and Paul Odenbach, February, 14.
Last Bus of the Night (The). Amelia Mari Merz, August, 10.
Major League Dreams: How Baseball Transforms a Physician Each Spring. Jon Hallberg, June, 12.
Measure for Measure. Kathleen Bradley, November, 10.
Merz AM: The Last Bus of the Night, August, 10.
Radcliffe N: Fit to Be Tied, February, 10.
Telling Tales. Gretchen Thompson, May, 10.
Thompson G: Telling Tales, May, 10.
Troubled Kids, Troubled Times. Hennepin County Youths, September, 11.
Wilkes Smith L: After Hours, December, 14.

**Public Health Reports**

Air Bags: An Imperfect and Incomplete Solution. Jon S. Roesler and Mark R. Kinde, August, 57.
Diagnosis and Management of Asbestosis. Ola Kuku and David Parker, November, 47.
Geller J: Loneliness: An Overlooked and Costly Health Risk Factor, April, 48.
Jones D, Dunayer B, Thill C, and Oatman L: Where There's Smoke, There's Disease: The Dangers of Environmental Tobacco Smoke, March, 29.
Keeping Kids Safe During the Drive. Kelly L.P. Sabo, August, 58.

Kuku O, Parker D: Diagnosis and Management of Asbestosis, November, 47.
Loneliness: An Overlooked and Costly Health Risk Factor. Jeffrey Geller, April, 48.
Minnesota Surveillance for Unexplained Deaths and Critical Illnesses of Possible Infectious Cause. Jean Rainbow, Ruth Lynfield, James R. Johnson, and Richard N. Danila, January, 51.
Rainbow R, Lynfield R, Johnson JR, Danila RN: Minnesota Surveillance for Unexplained Deaths and Critical Illnesses of Possible Infectious Cause, January, 51.
Roesler JS, Kinde MR: Air Bags: An Imperfect and Incomplete Solution, August, 57.
Sabo KLP: Keeping Kids Safe During the Drive, August, 58.
Where There's Smoke, There's Disease: The Dangers of Environmental Tobacco Smoke. David Jones, Barry Dunayer, Christina Thill, and Laura Oatman, March, 29.

Q

Quiet Crusader Puts Faith in Science (A). Susan Gaines, November, 6.

R

Radcliffe N: Fit to Be Tied, February, 10.
Rainbow R, Lynfield R, Johnson JR, Danila RN: Minnesota Surveillance for Unexplained Deaths and Critical Illnesses of Possible Infectious Cause, January, 51.
Rakatansky H: Impaired Drivers, August, 22.
Rapid Fire. Anne Welsbacher, March, 8.
Ratner E, Norlander L: The Minnesota Partnership to Improve End-of-Life Care, May, 43.
Reaching Communities of Children. Kim Palmer, September, 6.
Read JO: Health Policy Hub, April, 26.
Read JO: Learning the Art of Medicine, August, 14.
Read JO: Soul Music: Enhancing End-of-Life Care with Music Therapy, May, 22.
Regional Differences in Cardiovascular Mortality in Minnesota. John Morrison, Vincent Garry, Mary E. Harkins, Melissa Cohen, and Judy Palermo, April, 41.
Renner D: MMA Legislative Preview: 2000 Promises Short Session, Big Surplus, Complex Issues, February, 29.
Revision: Time to Take Another Look. James Kaufmann, December, 72.
Rich CF: Error Prevention: One State's Approach, July, 12.
Rich CF: Opening the National Practitioner Data Bank: Good Idea or Bad Public Policy? July, 30.
Roesler J, Ostercamp M: Pediatric Firearm Injury in Minnesota, 1998: Fatal and Nonfatal Firearm Injuries among Minnesota Youth, September, 57.
Roesler JS, Kinde MR: Air Bags: An Imperfect and Incomplete Solution, August, 57.
Rooks JK, Roberts DJ, and Scheltema K: Tattoos: Their Relationship to Trauma, Psychopathology, and Other Myths, July, 24.
Rugel J: Babes in Arms: Juvenile Access to Guns in Minnesota, September, 18.
Rural Minnesota Family Physicians: Practice Characteristics, Gender, Income, and Job Satisfaction. Robert E. Berg and Barbara A. Elliott, February, 42.

S

Sabo KLP: Keeping Kids Safe During the Drive, August, 58.
Sachs WJ, Adair R, and Kirchner V: Enteric Parasites in East African Immigrants: Symptoms and Duration of U.S. Residence Are Not Predictive, December, 25.
Scandrett M: Faultfinding: No Cure for Health Care Woes, February, 22.
Seduced by Smoke. Jon Hallberg, March, 12.
Sentence Variety: The Long and Short of It. James Kaufmann, March, 64.
Showtime. Dan Emerson, April, 8.
Siegfried T: In Battle Against Obesity, Biochemists Are Warriors, November, 17.
Silversmith J: The Impact of the 1997 Balanced Budget Act on Medicare, December, 42.
Silversmith J: Late Payment of Physician Claims: Results of an MMA Survey, February, 25.
Smith K: Mastering the Medicine of Motion, June, 26.
Snowbird. Howard Bell, February, 72.
Soul Music: Enhancing End-of-Life Care with Music Therapy. Jodi Ohlsen Read, May, 22.
Spokeswoman for Safety (A). Anne Welsbacher, July, 6.
Sports for Kids with Disabilities. Gillette Children's Specialty Healthcare, June, 25.
Stapleton S: Media Violence: The Harsh Reality, September, 28.
Striking Back. Cynthia Lehman, September, 24.
Successful Losers: The Habits of Individuals Who Have Maintained Long-term Weight Loss. Mary Lou Klem, November, 43.
Survival of the Fattest. Sue Goetinck, November, 14.
Systems Analyst. Dan Emerson, October, 6.

### Special Reports

Allen J, Brock SA: Tailoring the Message, May, 45.
Beyond Treating the Wounds. Jill Heins Nesvold, Sara Seifert, Neal Holtan, and Janny Dwyer Brust, September, 51.
Cochrane Library (The): A Resource for Current Reviews of Clinical Evidence. Amit Ghosh, Kathryn Robbins, and Julia Kelly, July, 43.
Durenberger D: Election 2000: What Your Vote May Mean for Health Care Policy, October, 46.
Election 2000: What Your Vote May Mean for Health Care Policy. David Durenberger, October, 46.

Ghosh A, Robbins K, Kelly J: The Cochrane Library: A Resource for Current Reviews of Clinical Evidence, July, 43.
Health Care Taxes in Minnesota: An Analysis. The Minnesota Taxpayers Association, March, 43.
Heilman C: Listening to Rural Minnesota, September, 54.
Impact of the 1997 Balanced Budget Act on Medicare (The). Janet Silversmith, December, 42.
Interactive Media Violence and Children. David Walsh, September, 42.
Kahn J: Protecting Youth from Harm, September, 47.
Kohn M: Learning to Be Present to Dying Patients, May, 26.
Late Payment of Physician Claims: Results of an MMA Survey. Janet Silversmith, February, 25.
Learning to Be Present to Dying Patients. Martin Kohn, May, 26.
Listening to Rural Minnesota. Cheryl Heilman, September, 54.
MEDPAC Board of Directors: MEDPAC Endorsements for the 2000 Elections, October, 50.
MEDPAC Endorsements for the 2000 Elections. MEDPAC Board of Directors, October, 50.
Minnesota Partnership to Improve End-of-Life Care (The). Edward Ratner and Linda Norlander, May, 43.
Minnesota's Medicare PRO Focuses on Quality Improvement. Jane Pederson, Tom Arneson, and Jennifer Lundblad, January, 42.
Minnesota Taxpayers Association (The): Health Care Taxes in Minnesota: An Analysis, March, 43.
Oberg CN, Cutts DB: Pediatrics: A Century of Caring, January, 29.
Nesvold JH, Seifert S, Holtan N, Brust JD: Beyond Treating the Wounds, September, 51.
Pederson J, Arneson T, Lundblad J: Minnesota's Medicare PRO Focuses on Quality Improvement, January, 42.
Pediatrics: A Century of Caring. Charles N. Oberg and Diana Becker Cutts, January, 29.
Promising Approaches to Youth Violence Prevention. Renee Vanman Wixon, September, 49.
Protecting Youth from Harm. Judith Kahn, September, 47.
Ratner E, Norlander L: The Minnesota Partnership to Improve End-of-Life Care, May, 43.
Silversmith J: The Impact of the 1997 Balanced Budget Act on Medicare, December, 42.
Silversmith J: Late Payment of Physician Claims: Results of an MMA Survey, February, 25.
Tailoring the Message. Judy Allen and Susan A. Brock, May, 45.
Walsh D: Interactive Media Violence and Children, September, 42.
Wixon RV: Promising Approaches to Youth Violence Prevention, September, 49.

T

Tailoring the Message. Judy Allen and Susan A. Brock, May, 45.
Tattoos: Their Relationship to Trauma, Psychopathology, and Other Myths. J. Kenneth Rooks, David J. Roberts, and Karen Scheltema, July, 24.
Telling Tales. Gretchen Thompson, May, 10.
Thalhuber W: Palliative Care in Minnesota, May, 52.
Thistle J: Community Forums Bring Together Minnesota's Health Care Players, January, 23.
Thistle J: Leading the Way, April, 30.
Thomas AJ, Blitz GR: Preventing Upper Extremity Overuse Injuries in Child and Adolescent Athletes, June, 47.
Thompson G: Telling Tales, May, 10.
Tretheway BE, Marden HD: Practicing in the Age of EMTALA, February, 55.
Troubled Kids, Troubled Times. Hennepin County Youths, September, 11.

U

Understanding and Surviving Medicare Audits. David Glaser, December, 29.

V

Van Etta J: Driving in the Sane Lane. Review of "Steering Clear of Highway Madness: A Driver's Guide to Curbing Stress and Strain," by John Larson, August, 61.

W

Walsh D: Interactive Media Violence and Children, September, 42.
Wangsness M: Pharmacological Treatment of Obesity: Past, Present, and Future, November, 21.
Well-Engineered Medical Career (A). Ralph C. Heussner, Jr., January, 6.
Welsbacher A: Rapid Fire, March, 8.
Welsbacher A: A Spokeswoman for Safety, July, 6.
Where There's Smoke, There's Disease: The Dangers of Environmental Tobacco Smoke. David Jones, Barry Dunayer, Christina Thill, and Laura Oatman, March, 29.
Whiplash, Chronic Neck Pain, and Zygapophyseal Joint Disorders. David B. Ketroser, February, 51.
Whitten JC: Lessons from the Heart, April, 23.
Why You Must Write Badly ... Once You Get Started, That Is. James Kaufmann, July, 64.
Wilkes Smith L: After Hours, December, 14.
Wixon RV: Promising Approaches to Youth Violence Prevention, September, 49.
Wolfe B: Grief and the Family, May, 55.
Worldly-Wise. Carmen Peota, December, 6.

X, Y, Z

Yawn BP, Wollan P, Cockerill F, and Lydick E: Antibiotic Bacterial Resistance in Ambulatory Patients, October, 53.

**There could be something missing in the Minnesota Medical Association**

# You

**Now is the time to renew your membership for 2001**

Renewal materials for your MMA membership will be arriving soon.

Renew your membership **as soon as possible** to ensure continuity of benefits and services.

The MMA membership department will be glad to assist you in renewing your 2001 membership if you have questions.

Call **800/DIAL MMA** or **612/378-1875** to renew your membership by phone or to have renewal materials faxed to you.

**Renew today.**

MMA
MINNESOTA MEDICAL ASSOCIATION
MEDICINE'S VOICE IN MINNESOTA

# Revision: Time to Take Another Look

James Kaufmann, Ph.D.

Recent "Just Write" columns have focused on the writing process (see the May, July, and October issues). Points stressed have included the importance of finding things to say and an order to say them in, and then getting the first draft written quickly.

So ... you did your prewriting work and then produced a first draft. You wrote as fast as you could, and you wrote a lot. And even though you began with a plan, your draft seems to be a mess. Don't despair. You're ready to begin revision.

## *Reconsider Your Purpose*

Many writers believe they're revising if they're working on sentence construction, word choice, and mechanics (e.g., spelling and punctuation). That's actually a later stage of the writing process called polishing. "Revision" implies looking at something again. In writing, revision entails a fundamental assessment of the emerging text that prompts substantive changes. You don't make simple corrections or stylistic improvements; rather, you add, delete, and reorganize content.

In revision, as in writing generally, purpose and audience are the most important considerations. Ask yourself: What was my original purpose for writing? Can this piece of writing, nascent as it is, mature into a text that will achieve that purpose? If your outline matched your purpose, and you drafted more or less according to the outline, the answer should be yes. In that case, you can proceed to questions like these: Does the first paragraph or opening section define my subject and purpose? Do subsequent paragraphs or sections fully develop the announced subject and no others? Is like material organized with like? Does the last paragraph or section bring the text to a recognizable close (e.g., by way of a conclusion or summary)? The answers to these questions will prompt you to add, delete, and relocate material.

What if you find that your first draft strayed considerably from your original purpose and plan? First, this does not necessarily indicate a flaw in your plan or your draft. Writing is a tool for thought, a means of discovery. Sometimes authors write their way to their purpose and meaning. However, if your draft seriously departs from your plan, you'll have to choose between the plan and the draft. Opting for the original plan will entail massive revision of the draft (better done now rather than later). Choosing the draft should prompt you to adopt a new purpose and create a new plan based on the direction taken by the draft; this, in turn, will probably involve more drafting.

## *Don't Forget Your Audience*

Checking your goals and purposes will help ensure that your text satisfies the expectations that the text itself creates. However, readers sometimes have additional expectations. Some are explicit, as in a journal's "Author Instructions," which should be consulted during both revision and planning. Others are less obvious. For example, members of a particular group may expect that any discussion of X will include discussions of A, B, C, and D. Writers not privy to this expectation (perhaps because of inexperience in writing about X for this readership) may fail to cover all the anticipated ground. For this reason, a colleague who resembles the intended audience should critique the text.

## *Bottom Line*

The essential task of revision is to bring forth coherence from a draft. To do this, you must be aggressive. Cut radically to enhance the order and consistency in the material surviving the cut. Look for and fill holes to improve the flow. Reorganize existing paragraphs and sections. Revision is where the real excitement of writing occurs. Don't miss out on the fun. MM

*James Kaufmann is an editor in the Section of Scientific Publications at Mayo Clinic, in Rochester.* *Copyright 2000 Mayo Foundation.* *His "Just Write" column appears bimonthly in* Minnesota Medicine.

2076
0470
1729

NOT TO CIRCULATE

NOT TO CIRCULATE

Wert
Bookbinding
Grantville, PA
JAN-JUNE 2002
"We're Quality 'Bound"